Service Manual

DV7000 /F1N, /K1G, /S1G, /U1G
F1B, /K1B, /N1B, /U1B

DVD Player

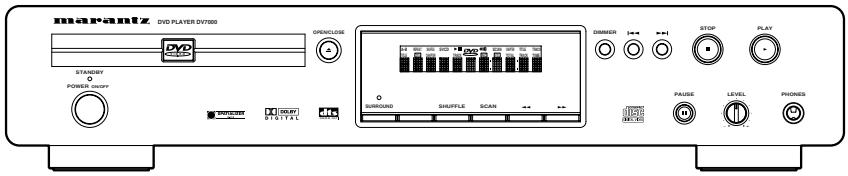


TABLE OF CONTENTS

SECTION	PAGE
1. MAIN UNIT	
1.1 TECHNICAL SPECIFICATIONS	1-1
1.2 CONNECTION FACILITIES	1-2
1.3 INFORMATIONS	1-3
1.4 SERVICING HINT	1-4
1.5 DISASSEMBLY	1-5
1.6 REPLACEMENT OF PRINCIPAL COMPONENTS	1-6
1.7 SERVICE MODE	1-8
1.8 ELECTRICAL ADJUSTMENT	1-10
1.9 WAVEFORM	1-12
1.10 WIRING DIAGRAM	1-13
1.11 BLOCK DIAGRAM	1-15
1.12 SCHEMATIC DIAGRAM	1-17
1.13 PARTS LOCATION	1-27
1.14 EXPLODED VIEW AND PARTS LIST	1-32
1.15 ELECTRICAL PARTS LIST	1-35
2. TKM1000MZ (DVD MODULE for MARANTZ)	
2.1 SCHEMATIC DIAGRAM AND PARTS LOCATION	2-1
2.2 MICROPROCESSOR AND IC DATA	2-15
2.3 EXPLODED VIEW AND PARTS LIST	2-28
2.4 ELECTRICAL PARTS LIST	2-30

Please use this service manual with referring to the user guide (D.F.U.) without fail.
修理の際は、必ず取扱説明書を準備し操作方法を確認の上作業を行ってください。

marantz®

DV7000

383K855010 MIT
3120 785 22300
First Issue 2000.07

Printed in Japan

MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, **MARANTZ** company has created the ultimate in stereo sound. Only original **MARANTZ** parts can insure that your **MARANTZ** product will continue to perform to the specifications for which it is famous.

Parts for your **MARANTZ** equipment are generally available to our National Marantz Subsidiary or Agent.

ORDERING PARTS :

Parts can be ordered either by mail or by Fax.. In both cases, the correct part number has to be specified.

The following information must be supplied to eliminate delays in processing your order :

1. Complete address
2. Complete part numbers and quantities required
3. Description of parts
4. Model number for which part is required
5. Way of shipment
6. Signature : any order form or Fax. must be signed, otherwise such part order will be considered as null and void.

USA

MARANTZ AMERICA, INC.
440 MEDINAH ROAD
ROSELLE, ILLINOIS 60172
USA
PHONE : 630 - 307 - 3100
FAX : 630 - 307 - 2687

EUROPE / TRADING

MARANTZ EUROPE B.V.
P.O.BOX 80002, BUILDING SFF2
5600 JB EINDHOVEN
THE NETHERLANDS
PHONE : +31 - 40 - 2732241
FAX : +31 - 40 - 2735578

BRAZIL

PHILIP DA AMAZONIA IND. ELET. ITDA
CENTRO DE INFORMACOES AO
CEP 04698-970
SAO PAULO, SP, BRAZIL
PHONE : 0800 - 123123(Discagem Direta Gratuita)
FAX : +55 11 534. 8988

PROFESSIONAL **AMERICAS**

SUPERSCOPE TECHNOLOGIES, INC.
MARANTZ PROFESSIONAL PRODUCTS
2640 WHITE OAK CIRCLE, SUITE A
AURORA, ILLINOIS 60504 USA
PHONE : 630 - 820 - 4800
FAX : 630 - 820 - 8103

PROFESSIONAL **AUSTRALIA**

TECHNICAL AUDIO GROUP PTY, LTD
558 DARLING STREET,
BALMAIN, NSW 2041,
AUSTRALIA
PHONE : 61 - 2 - 9810 - 5300
FAX : 61 - 2 - 9810 - 5355

CANADA

LENBROOK INDUSTRIES LIMITED
633 GRANITE COURT,
PICKERING, ONTARIO L1W 3K1
CANADA
PHONE : 905 - 831 - 6333
FAX : 905 - 831 - 6936

AUSTRALIA

JAMO AUSTRALIA PTY LTD
1 EXPO COURT, P.O. BOX 350
MT. WAVERLEY VIC 3149
AUSTRALIA
PHONE : +61 - 3 - 9543 - 1522
FAX : +61 - 3 - 9543 - 3677

THAILAND

MRZ STANDARD CO.,LTD
746 - 754 MAHACHAI ROAD.,
WANGBURAPAPIROM, PHRANAKORN,
BANGKOK, 10200 THAILAND
PHONE : +66 - 2 - 222 9181
FAX : +66 - 2 - 224 6795

SINGAPORE

WO KEE HONG (S) PTE LTD
WO KEE HONG CENTRE
NO.23, LORONG 8, TOA PAYOH
SINGAPORE 319257
PHONE : +65 2544555
FAX : +65 2502213

NEW ZEALAND

WILDASH AUDIO SYSTEMS NZ
14 MALVERN ROAD MT ALBERT
AUCKLAND NEW ZEALAND
PHONE : +64 - 9 - 8451958
FAX : +64 - 9 - 8463554

TAIWAN

PAI- YUING CO., LTD.
6 TH FL NO, 148 SUNG KIANG ROAD,
TAIPEI, 10429, TAIWAN R.O.C.
PHONE : +886 - 2 - 25221304
FAX : +886 - 2 - 25630415

MALAYSIA

WO KEE HONG ELECTRONICS SDN. BHD.
SUITE 8.1, LEVEL 8, MENARA GENESIS,
NO. 33, JALAN SULTAN ISMAIL,
50250 KUALA LUMPUR, MALAYSIA
PHONE : +60 3 - 2457677
FAX : +60 3 - 2458180

JAPAN *Technical*

MARANTZ JAPAN, INC.
35- 1, 7- CHOME, SAGAMIONO
SAGAMIHARA - SHI, KANAGAWA
JAPAN 228-8505
PHONE : +81 42 748 1013
FAX : +81 42 741 9190

日本マランツ株式会社

本 社 〒228-8505
神奈川県相模原市相模大野7-35-1
営業本部 〒150-0022
東京都渋谷区恵比寿南1-11-9

KOREA

MK ENTERPRISES LTD.
ROOM 604/605, ELECTRO-OFFICETEL, 16-58,
3GA, HANGANG-RO, YONGSAN-KU, SEOUL
KOREA
PHONE : +822 - 3232 - 155
FAX : +822 - 3232 - 154

SHOCK, FIRE HAZARD SERVICE TEST :

CAUTION : After servicing this appliance and prior to returning to customer, measure the resistance between either primary AC cord connector pins (with unit NOT connected to AC mains and its Power switch ON), and the face or Front Panel of product and controls and chassis bottom.

Any resistance measurement less than 1 Megohms should cause unit to be repaired or corrected before AC power is applied, and verified before it is return to the user/customer.

Ref. UL Standard No. 1492.

In case of difficulties, do not hesitate to contact the Technical Department at above mentioned address.

1. TECHNICAL SPECIFICATIONS

Discs played

DVD video disc	12 cm single sided, single layer
	12 cm single sided, double layer
	12 cm double sided, single layer
	12 cm double sided, double layer (one layer per side)
	8 cm single sided, single layer
	8 cm single sided, double layer
	8 cm double sided, single layer
	8 cm double sided, double layer (one layer per side)
Compact disc (CD-DA, Video CD)	12 cm, 8 cm

Video system	PAL (625/50) / NTSC (525/60)
Audio system	Linear PCM audio
	MPEG 1/2 audio
	Dolby Digital (AC-3)
	DTS audio (Digital output only)

Video output

Line output level	1.0 Vp-p / 75 ohms, unbalanced
	RCA pin Jack x 2
S1-output level	Y output: 1.0 Vp-p / 75 ohms unbalanced
	C output: 0.3 Vp-p / 75 ohms (PAL)
	0.286 Vp-p / 75 ohms (NTSC)
	4 pin mini DIN x 1
Color different output level	Y output: 1.0 Vp-p / 75 ohms unbalanced
	C_B, C_R output: 0.7 Vp-p / 75 ohms
	RCA pin Jack x 3 (/F1, /K1, /S1, /U1)
R/G/B output	R/G/B output: 0.7 Vp-p 21-pin SCART connector x 2 (/N1B)

Audio output

Line output	2.0 Vrms / 330 ohms
	RCA pin Jack x 2 system

Digital audio output

Optical output	Optical connector x 1
Coaxial output	0.5 Vp-p / 75 ohm RCA pin Jack x 1

DVD linear audio characteristics

Frequency response	4 Hz-22 kHz (Fs = 48 kHz)
	4 Hz-44 kHz (Fs = 96 kHz)
S/N ratio	More than 110 dB (Fs = 48 kHz / 24 bit PCM)
Dynamic range	More than 100 dB (Fs = 48 kHz / 24 bit PCM)
Total harmonic distortion	Less than 0.0025% (Fs = 48 kHz / 24 bit PCM)

CD audio characteristics:

Frequency response	4 Hz - 20 kHz (EIAJ)
S/N ratio	More than 110 dB (EIAJ)
Dynamic range	More than 100 dB (EIAJ)
Total harmonic distortion	Less than 0.0025% (EIAJ)

Pickup	Wavelength: 655 nm (DVD)
	Wavelength: 790 nm (CD)

Power requirements	120V AC, 60 Hz (/U1)
	100V AC, 50 / 60 Hz (/F1)
	230V AC, 50 Hz (/N1)
	220V AC, 50 Hz (/K1)
	220 - 230V AC, 50 / 60 Hz (/S1)
Power consumption	22 W (standby mode = approx 5 W, power off = 0 W)
Operation temperature	5 °C - 35 °C
Operation humidity range	5% - 90% (no condensation)

Dimensions	440 (W) x 87 (H) x 304 (D) mm (excluding protrusions)
Weight	4.0 kg

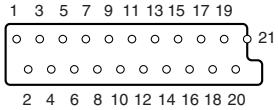
Supplied accessories

Auido / Video cable	x 1
D-BUS remote cable	x 1
Remote control unit	x 1
Batteries	x 2

• For improvement purposes, specifications and design are subject to change without notice

2. CONNECTION FACILITIES

2.1 Video performance (/N1 only)



2. 1. 1 SCART

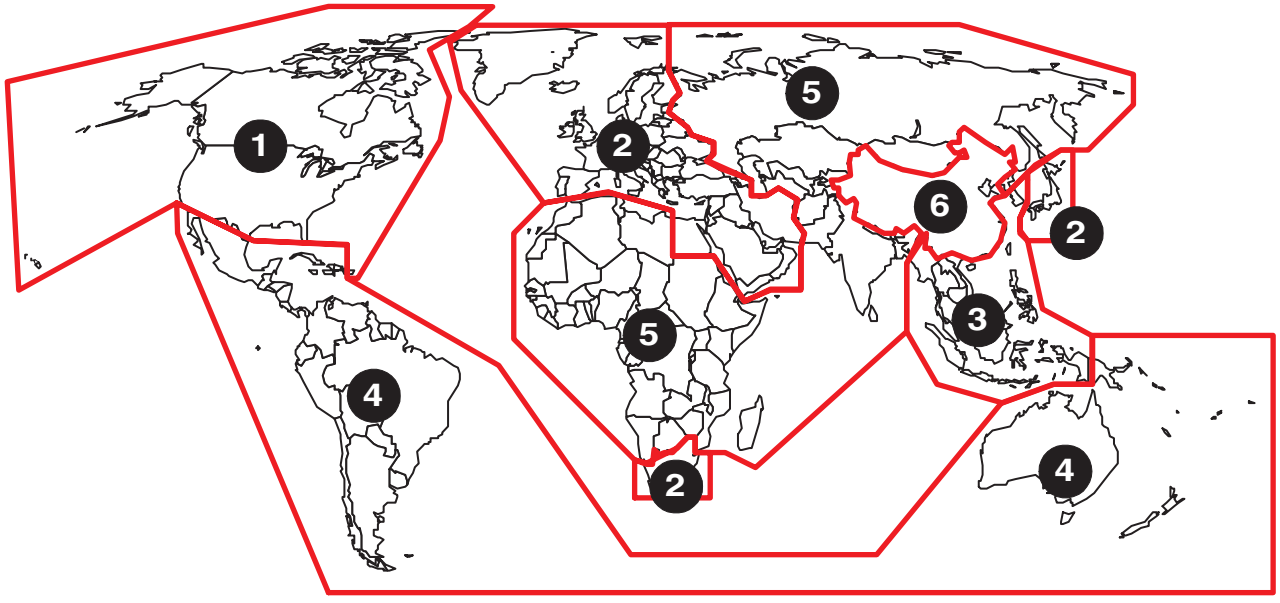
Pin No.	TV (OUT)	Pin No.	AUX (IN)
Pin 1	Audio R out : 2Vrms	Pin 1	Audio R out : 2Vrms
Pin 2	Audio R in : 2Vrms	Pin 2	Audio R in : 2Vrms
Pin 3	Audio L out : 2Vrms	Pin 3	Audio L out : 2Vrms
Pin 4	GND	Pin 4	GND
Pin 5	GND	Pin 5	GND
Pin 6	Audio L in : 2Vrms	Pin 6	Audio L in : 2Vrms
Pin 7	Blue out/C in Blue : 0.7Vpp ±0.1V into 75 Ohm *1 C : 300mVpp ±30 into 75 Ohm *2	Pin 7	Blue in/C out Blue : 0.7Vpp ±0.1V into 75 Ohm *1 C : 300mVpp ±30 into 75 Ohm *2
Pin 8	function switching out <2V : TV >5/<8 : asp.ratio 16 : 9 DVD/AUX >9.5/<12 : asp.ratio 4 : 3 DVD/AUX	Pin 8	function switching in<2V : DVD >5/<8 : asp.ratio 16 : 9 AUX >9.5/<12 : asp.ratio 4 : 3 AUX
Pin 9	GND	Pin 9	GND
Pin 10	not connected	Pin 10	not connected
Pin 11	Green out:0.7Vpp ±0.1V into 75 Ohm *1	Pin 11	Green in:0.7Vpp ±0.1V into 75 Ohm
Pin 12	not connected	Pin 12	not connected
Pin 13	GND	Pin 13	GND
Pin 14	GND	Pin 14	GND
Pin 15	Red/C out Red : 0.7Vpp ±0.1V into 75 Ohm *1 C : 300mVpp ±30 into 75 Ohm *2	Pin 15	Red/C in Red : 0.7Vpp ±0.1V into 75 Ohm *1 C : 300mVpp ±30 into 75 Ohm *2
Pin 16	fast switching out <0.4V into 75 Ohm=CVBS/S-Video 1</<3 into 75 Ohm=RGB	Pin 16	fast switching in <0.4V into 75 Ohm=CVBS/S-Video 1</<3 into 75 Ohm=RGB
Pin 17	GND	Pin 17	GND
Pin 18	GND	Pin 18	GND
Pin 19	CVBS/Y out : 1Vpp ±0.1V *1	Pin 19	CVBS/Y out : 1Vpp ±0.1V *1
Pin 20	CVBS/Y in : 1Vpp ±0.1V *1	Pin 20	CVBS/Y in : 1Vpp ±0.1V *1
Pin 21	GND	Pin 21	GND

*1 : 100% White *2 : Burst Level *3 : color bar(chroma level : 75%)

What are "regional codes"?

Motion picture studios want to control the home release of movies in different countries because theater releases arenit simultaneous (a movie may come out on DVD in the US when itis just hitting screens in Europe). Therefore they have required that the DVD standard include codes which can be used to lock out the playback of certain discs in certain geo-graphical regions. Players sold in each region will have that regionis code built into the player. The player will refuse to play these "region coded" discs which are not allowed in the region. However, regional codes are entirely optional. Discs without codes will play on any player in any country. Some studios have already announced that only their new releases will have regional codes. There are six regions:

1. United States and Canada
2. Europe and Japan
3. Far East (except Japan & China)
4. South America and Oceania
5. Africa and the Middle East
6. China (except Hong Kong)



Map of DVD Regions

3. INFORMATIONS

REGION CODE

VERSION	REGION CODE	COUNTRY
/FXX	2	JAPAN
/KXX	6	CHINA
/NXX	2	EUROPE
/SXX	3	SINGAPORE/HONGKONG
/UXX	1	USA/CANADA

THE DISCS THAT THE DV7000 CAN HANDLE

The following discs can be played back with a DV7000.

disc	mark	playback capability	size	side
DVD		Audio/Video	12 cm 8 cm	single/double
CD		Audio	12 cm 8 cm	single
VCD	 	Audio/Video	12 cm 8 cm	single

Note: The regional code of the discs must meet to the regional code of the DV7000.

DVD INFORMATION

Below is a glossary of the new terms related to DVD.

Title:

A disc may have more than one story/movie on it, so each story/movie is called a "title".

For example, if there are 2 movies on the disc, they are separated into Title 1 and Title 2.

Chapter:

A title may also be separated into chapters.

For example, a movie (title) may be separated into 3 scenes (chapters).

Title 1			Title 2		
Chapter 1	Chapter 2	Chapter 3	Chapter 1	Chapter 2	Chapter 3

Subtitles:

DVDs are recorded with up to 32 different subtitle languages. If a disc has more than one subtitle language, you can select the subtitle language that you want to read.

Soundtrack language:

DVDs are recorded with up to 8 different soundtrack languages. If a disc has more than one language, you can select the soundtrack language that you want to listen to.

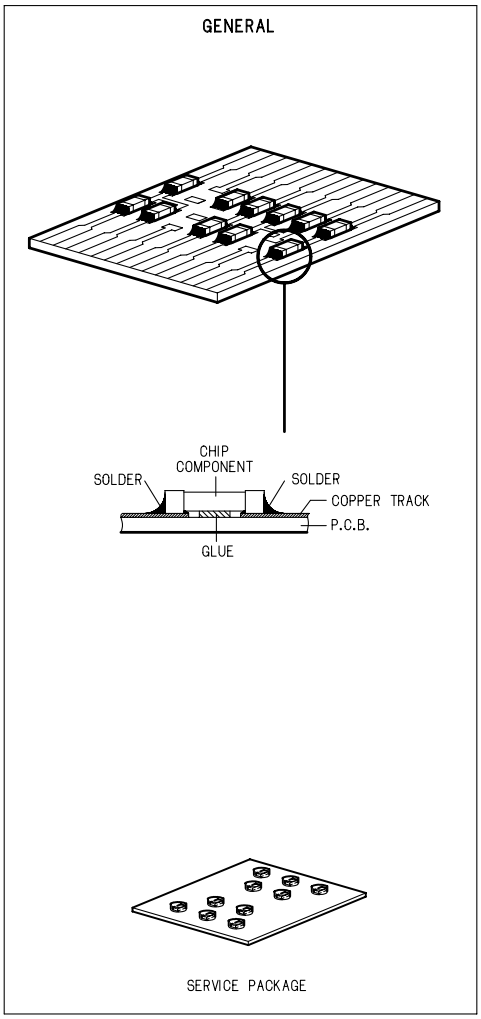
Multi-angles:

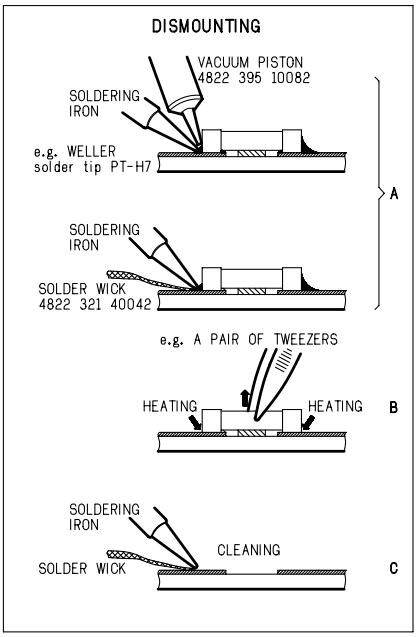
On some DVDs, scenes have been filmed from different angles (up to a maximum of 9). On these discs, you can select the angle that you want to watch. Please refer to the DVD's manual to see which scenes have multi-angles.

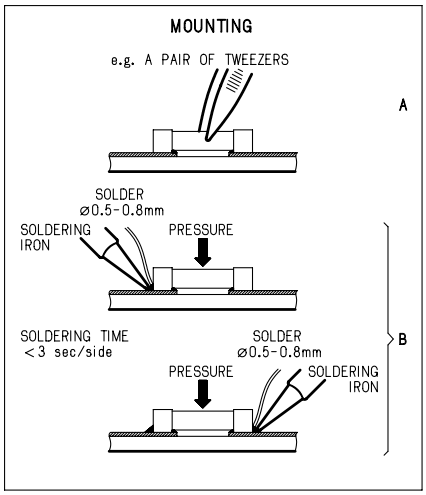
Cancelling password for parental press the DIMMER button and hold for 10 seconds while the player is stopped.

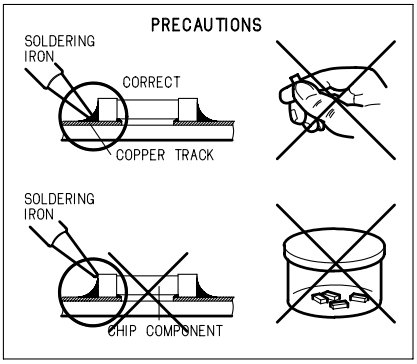
4. SERVICING HINT

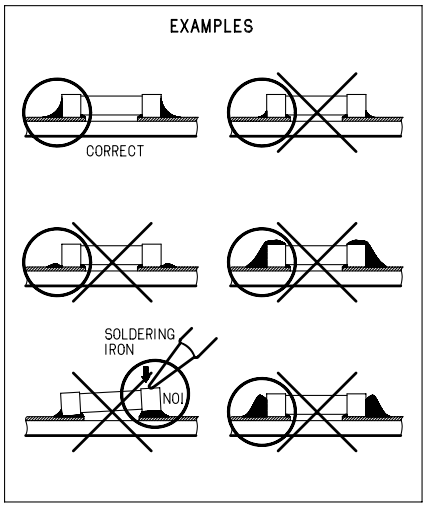
SERVICE HINTS











SERVICE TOOLS

Audio signals disc	4822 397 30184
Disc without errors (SBC444)+	
Disc with DO errors, black spots and fingerprints (SBC444A)	4822 397 30245
Disc (65 min 1kHz) without no pause	4822 397 30155
Max. diameter disc (58.0 mm)	4822 397 60141
Torx screwdrivers	
Set (straight)	4822 395 50145
Set (square)	4822 395 50132
13th order filter	4822 395 30204
DVD test disc (PAL)	4822 397 10131
DVD test disc (NTSC) ALMEDIO	TDV-540

5. DISASSEMBLY

1. Open the tray and remove the escutcheon (050B).
   REMARK : If the tray doesn't work, put a small screwdriver into the hole as shown in picture and slide the knob. Then the tray comes out. After the first centimeter it is possible to pull the tray out by hand. (see fig.1)
2. Remove 6 screws and remove the top cover.
3. Remove a top right side screw on the power supply PCB and remove the GND lug wire.
4. Remove 3 connectors of the wire harness from (or to) front panel assembly.
5. Remove 2 screws of left and right side of the front panel assembly.
6. Remove the front panel assembly.
7. Remove the retainer on the DVD mechanism.
8. Remove FFC and wire harness from the DVD main PCB which mounted under the DVD mechanism.
9. Remove 4 screws and remove DVD mechanism module.

5. DISASSEMBLY

1. 電源を入れ、トレーを引き出し、エスカッション(050B)を取り外します。
   注意：トレーが出ない場合には下記の方法で手動でトレーを引き出してください。
2. 本体を裏返し、細いドライバーでスライドノブを左側に押します。トレーが手前に出てきます。(fig.1 参照)
3. ネジを 6本外し、トップカバーを外します。
4. 電源基板の手前側右のネジを外し、アースラグの付いたケーブルを外します。
5. フロントパネルアッセンブリーに繋がっているケーブル３本を外します。
6. フロントパネルアッセンブリーの両端のネジ2本を外します。
7. フロントパネルアッセンブリーを外します。
8. DVDメカの上部のケーブルホルダーを外します。
9. DVDメイン基板に接続されているFFCとケーブルを外します。
10. ネジを4本外し、DVDモジュールを取り外します。

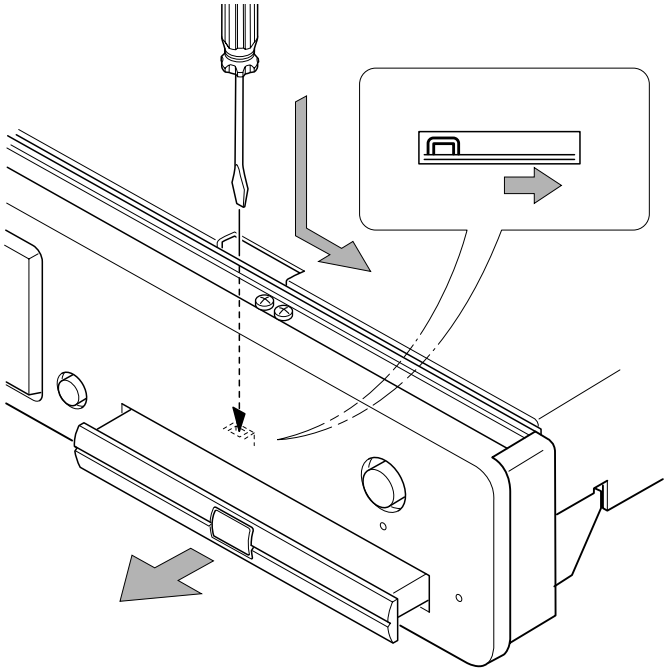


Fig. 1

6. REPLACEMENT OF PRINCIPAL COMPONENTS

6-1. Removal of the TRAVERSE MECHA.

6-1-1. Removal of the MECHANISM BLOCK

1) Turn the unit's power on and press the "EJECT" button to eject the DISC TRAY.
2) Disconnect the power cord and remove the DISC CLAMPER BLOCK.
3) Completely remove the DISC TRAY by pulling it outwards while pulling up both of the stopper tabs alternately.

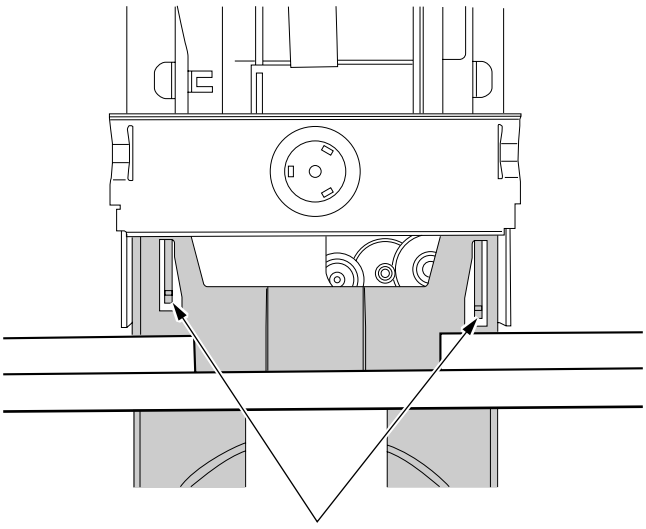


Fig. 6-1

4) Disconnect the two flat cables from the P803 connectors and one flat cable from the P808 connector on the MAIN PCB.
5) Disconnect the P807 connector on the MAIN PCB.
6) Remove the four a retaining screws and remove the MECHANISM BLOCK from the chassis.

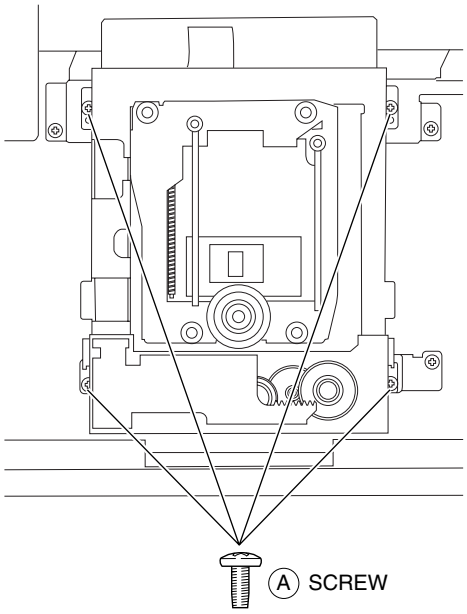


Fig. 6-2

6-1-2. Removal of the TRAVERSE MECHA.

1) Remove the four b screws on the MAIN PCB and then disconnect the P800 connector on the MAIN PCB.

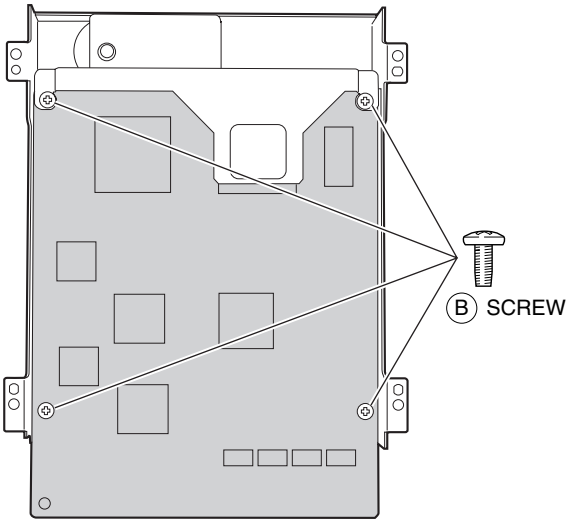


Fig. 6-3

2) Short the laser diode protection circuit on the PICK UP BLOCKÕs flexible cable with solder as shown.

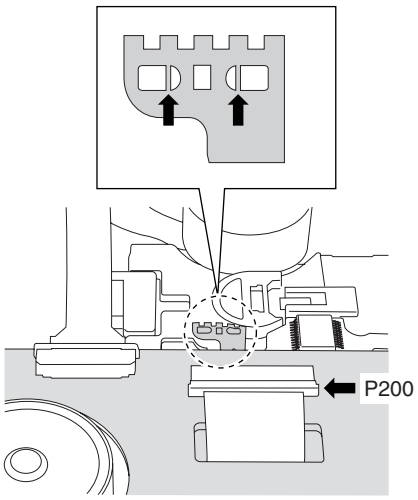


Fig. 6-4

Caution

To protect the laser diode from damage caused by high voltage static electricity, a laser diode protection circuit has to be shorted before disconnecting the flexible cable (P200 connector on the MECHANISM PCB). It is recommended that you put solder on the top of the soldering iron as shown in Fig. 3-5 then short the circuit at once. When you replace the TRAVERSE MECHA., be sure to connect the P200 connector before removing the solder at the shorted parts.

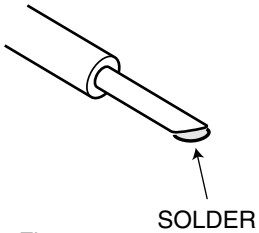


Fig. 6-5

3) Carefully disconnect the two connectors (P500, P600) and the two flat cables (P200, P300) on the MECHANISM PCB.

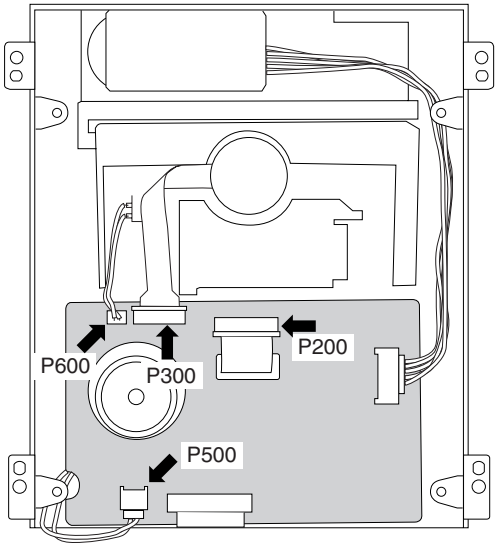


Fig. 6-6

4) Using tweezers, release the four retaining HOOKs of the TRAVERSE MECHA. from the rubber insulators being careful not to damage the rubber insulators.

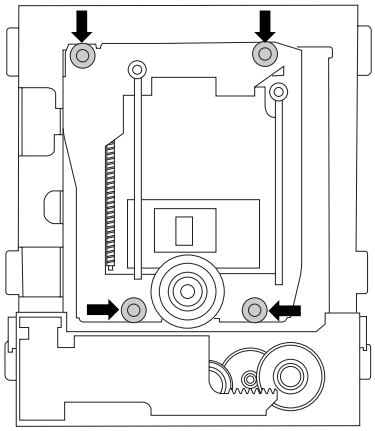


Fig. 6-7

5) Remove the TRAVERSE MECHA. from the MECHANISM BLOCK.
6) Reassemble in the reverse order for installation. Never remove the solder on the flexible cable before connecting the P200 connector on the MECHANISM PCB.

6-2. Replacement of the SPINDLE MOTOR

* Because the SPINDLE MOTOR position is very critical, jitter adjustment should be performed after replacement.

1) Disconnect the P300 connector on the MECHANISM PCB.
2) Insert a Philips type screw driver into the hole on the TURN TABLE of the SPINDLE MOTOR and remove the two screws.

6-3. Replacement of the PICK UP BLOCK

* Replacement of the PICK UP BLOCK itself is not recommended because its azimuth adjustment is very critical and requires a special jig. If PICK UP BLOCK replacement is necessary, replace with an entire TRAVERSE MECHANISM only.

7. SERVICE MODE

FLD, LED TEST

1. Press the mains switch (**POWER** BUTTON) while depressing the **PAUSE** button and **STOP** button.
2. Status will be on the **TEST mode 1** and FL display shows <**TEST 1**>.
3. Press the **NEXT** button, then **Standby LED** will be light ON and FLD shows <**LED 1**>.
4. Press the **NEXT** button again, then **Surround LED** will be light ON and FLD shows <**LED 2**>.
5. Press the **NEXT** button again, then all segments of FLD will be light ON.
6. Press the **NEXT** button again, then each segments of FLD will be light ON by press by press. (17 forms)
7. Finally FLD shows <**KEY 0 0 0 0**>, it will be in "BUTTON (KEY) TEST MODE".
8. If press some button on the front panel, FLD shows a code of that pressed button.
9. If press the PAUSE button and STOP button simultaneously while FLD shows <**KEY 0 0 0 0**>. The status will be in "REMOTE CONTROL TEST MODE" and FLD shows <**RC6 000000**>.
10. If press some button on the remote controller, FLD shows a code of that pressed button.
11. Press the **NEXT** button again, then the version number of the main microprocessor (IC600 on the DVD main PCB) will be shown on the FLD.
12. Press the **NEXT** button again, then the version number of the slave microprocessor (**QF01** on the front PCB) will be shown on the FLD.
13. Press the **NEXT** button again, then the status will be #2. <TEST 1> mode. In case of finish the <TEST 1> mode, press the mains switch (**POWER** BUTTON).

How to EEPROM all clear

1. Press the mains switch (**POWER** BUTTON) while depressing the **PLAY** button and **STOP** button.
2. Status will be on the **TEST mode 2** and FL display shows <**TEST 2**>. After a couple of seconds FL display shows <**TEST2 OK**>.
3. Press the **PLAY** button, **PAUSE** button and **STOP** button simultaneously.
4. FL display shows <**TEST OK**>, then power off the mains switch (**POWER** BUTTON). **EEPROM** should cleared.

FLD, LEDの確認のしかた

1. PAUSEボタンとSTOPボタンを同じに押しながら、電源スイッチを押して下さい。
2. テストモード 1 に入り、ディスプレイには[TEST 1]と表示されます。
3. NEXTボタンを押すとStandby LED が点灯し、FLディスプレイには[LED 1] と表示されます。
4. 更にNEXTボタンを押すとSurround LED が点灯し、FLディスプレイには[LED 2]と表示されます。
5. 更にNEXTボタンを押すとFLディスプレイの全てのセグメントが点灯します。
6. 続けてNEXTボタンを押していくとFLディスプレイの各セグメントが点灯し、パターンが変わっていきます（全17種類）。
7. 最後にFLディスプレイに[KEY 0 0 0 0] と表示され、ボタン(KEY)操作確認モードになります。
8. 各ボタンを押すと、それらに対応したコードがFLディスプレイに表示されます。
9. FLディスプレイが[KEY 0 0 0 0]のときにPAUSEボタンとSTOPボタンを同時に押すと、FLディスプレイに[RC6 000000]と表示がされ、リモコンコードの確認画面になります。
10. Remote Controlの各ボタンを押すと、それに対応したコードがFLディスプレイ表示されます。
11. 更にNEXTボタンを押すと、メインマイコン(IC600:DVDメイン基板内) のバージョンが表示されます。
12. 更にNEXTボタンを押すと、フロント（スレーブ）マイコン(QF01)のバージョンが表示されます。
13. 更にNEXTボタンを押すと、2. の状態に戻ります。テストモード 1を終了するには電源ボタンを押して電源をOFFにして下さい。

EEPROMのクリアのしかた

1. PLAYボタンとSTOPボタンを同じに押しながら、電源スイッチを押して下さい。
2. テストモード 2に入り、ディスプレイには[TEST 2] と表示され、数秒後[TEST OK]と表示されます。
3. PLAYボタンとPAUSEボタンとSTOPボタンを同時に押します。
4. ディスプレイに[TEST2 OK]と表示されたら、電源スイッチを押して電源をOFFにしてください。EEPROMがクリアされます。

Type version confirmation

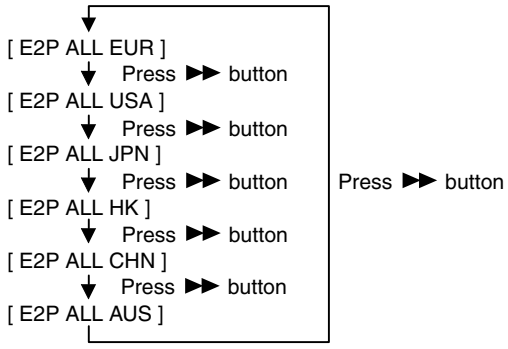
1. Power ON the DVD player. The FL display must be shown <**NO DISC**>.
2. Pressing the ▶▶ button and ◀◀ button simultaneously.
3. FL display shows product versions as follows.

DISPLAY	VERSIONS
[USA]	**/U1B, /U1G**
[EUROPE]	**/N1B, /N1G**
[HK ／S 'PORE]	**/S1G**
[CHINA]	**/K1B, /K1G**
[JAPAN]	**/F1B, /F1N**
[NO REGION]	**Incorrect setup.**

4. Release buttons. Then FL display shows <**NO DISC**> and status will be in usual mode.

Type Version setup

1. Press the mains switch (**POWER** BUTTON) while depressing the **STOP** button and **SHUFFLE** button.
2. The FL display shows <**E2P ALL EUR**> after a couple of seconds.
3. Type versions can be changed by pressing ▶▶ button and ◀◀ button.


[E2P ALL EUR]
Press ▶▶ button
[E2P ALL USA]
Press ▶▶ button
[E2P ALL JPN]
Press ▶▶ button
[E2P ALL HK]
Press ▶▶ button
[E2P ALL CHN]
Press ▶▶ button
[E2P ALL AUS]
Press ▶▶ button

VERSIONS	DISPLAY
/F1B, /F1N	**[E2P ALL JPN]**
/U1B, /U1G	**[E2P ALL USA]**
/N1B, /N1G	**[E2P ALL EUR]**
/S1G	**[E2P ALL HK]**
/K1B, /K1G	**[E2P ALL CHN]**
/A1B (no release)	**[E2P ALL AUS]**

4. Memorize the version by pressing **PLAY** button.
5. The FL display shows <**VERIFY OK**> after a couple of seconds.
6. Power OFF the mains switch.

製品仕向の確認のしかた

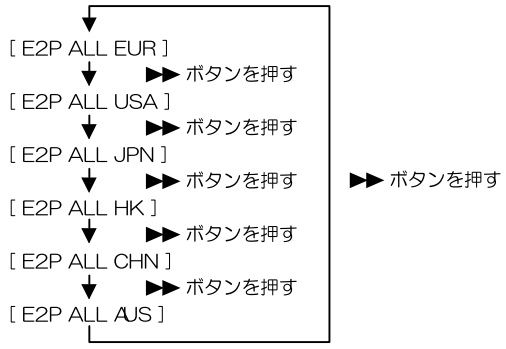
1. Disc が入っていない状態で、ディスプレイに[NO DISC]と表示されている事を確認します。
2. ▶▶ ボタンと ◀◀ ボタンを同時に押します。（押し続ける）
3. ディスプレイに仕向が表示されます。

表示	仕向 （バージョン ）
[USA]	/U1B, /U1G
[EUROPE]	/N1B, /N1G
[HK／S'PORE]	/S1B
[CHINA]	/K1B, /K1G
[JAPAN]	/F1B, /F1G
[NO REGION]	仕向設定が正しくない

4. ボタンを離すと、元の状態に戻りディスプレイに[NO DISC]と表示されます。

製品仕向の設定のしかた

1. STOPボタンとSHUFFLEボタンを同じに押しながら、電源スイッチを押して下さい。
2. 4～5秒後に、ディスプレイに[E2P ALL EUR]と表示がでます。
3. ▶▶ ボタンまたは ◀◀ ボタンを押して仕向を選択します。



仕向	表示
/F1B, /F1N	[E2P ALL JPN]
/U1B, /U1G	[E2P ALL USA]
/N1B, /N1G	[E2P ALL EUR]
/S1G	[E2P ALL HK]
/K1B, /K1G	[E2P ALL CHN]
/A1B (no release)	[E2P ALL AUS]

4. PLAYボタンを押し、仕向を決定します。
5. 2～3秒後に、ディスプレイに[VERIFY OK]と表示され、仕向設定が完了します。
6. 電源スイッチを押して、電源をOFFにします。

8. ELECTRICAL ADJUSTMENT

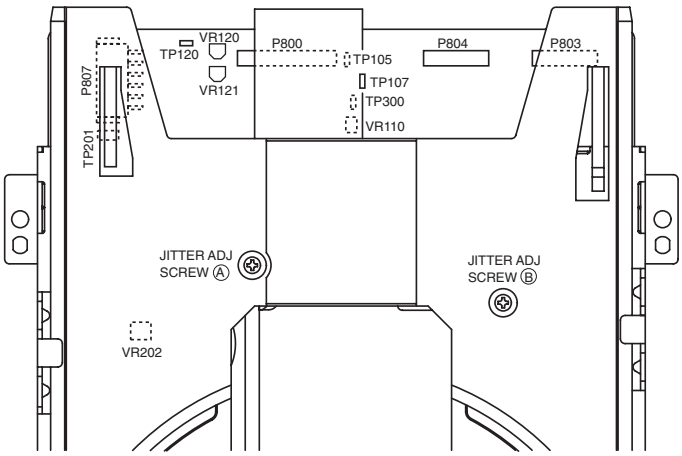


Fig. 8-1

8-1. DVD JITTER ADJUSTMENT

1. Stick the provided small round sticker (0.1 mm thickness) at the innermost position of a DVD disc as shown and make a swayed DVD disc.

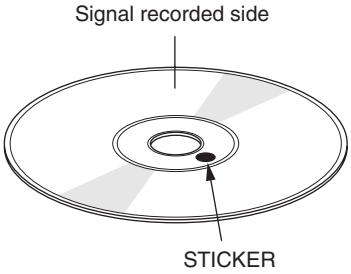


Fig. 8-2

2. Play back the swayed DVD disc and press the F.F button repeatedly until the pickup block reaches the outermost position of its movable range. Next, press the PAUSE button.
3. Set the oscilloscope to the DC input mode and connect it to the TP201 (HOT) and the TP102 (D.GND) on the MAIN PCB.
4. Adjust the a screw and b screw alternately so that the AC and DC level of the waveform is minimum. (DC level should be less than 1.8 V, AC component should be minimum.)

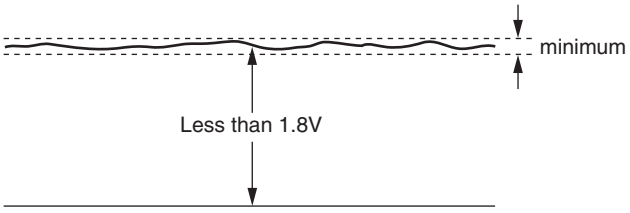


Fig. 8-3

NOTE: If the SPINDLE MOTOR is replaced, this jitter adjustment should be performed for proper performance.

8-2. SLICE LEVEL ADJUSTMENT

1. Play back an ordinary DVD disc (single side, one layer) and press the F.F button repeatedly until the pickup block reaches almost the center position of its movable range.
2. Set the oscilloscope to the DC input mode and connect it to the TP201 (HOT) and the TP102 (D.GND) on the MAIN PCB.
3. Adjust the VR202 so that the DC level is minimum. (The DC level should be less than 1.8 V)

8-3. CD TRACKING BALANCE

1. Set the VR110 at its center position prior to the adjustment.
2. Connect an oscilloscope to the TP150 (TE) on the MAIN PCB.
3. Play back an ordinary CD-disc and then set it to the PAUSE mode. If the play mode does not be engage, turn the VR110 at ±15 degrees. If the play mode does still not be engage even when the VR110 is turned at ±15 degrees, turn the VR110 at ± 30 degrees and try it again.
4. Observe the waveform and adjust it so that the level A of the waveform is the same as level B.

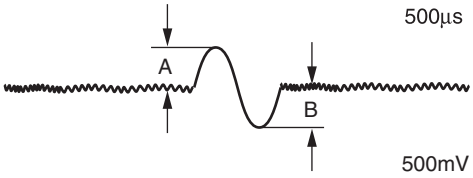


Fig. 8-4

8-4 AS Adjustment

CAUTION :

Do not see the laser pick-up! Cover the laser pick-up unit while AS adjustment.

Adjustment point : VR120, VR121
Test point : TP107(+), TP120 (+) TP105 (GND)
Equipment : Digital Multi Meter (DC voltage)

1. Press the mains switch (**POWER** BUTTON) while depressing the **PLAY** button and **STOP** button.
2. Status will be on the **TEST mode 2** and FL display shows <**TEST 2**>. After a couple of seconds FL display shows <**TEST2 OK**>.
3. Press the ▶▶I button. Then the FL display shows <**E3 02**> and the status will be in **AS adjustment mode**.
4. Measure the DC voltage at the test point **TP107**.
5. Press the ▶▶ button again. Then the DVD laser will light ON and the FL display shows <**E3 00**>.
6. Press the ▶▶ button again. Then the CD laser will light ON and the FL display shows <**E3 01**>.
7. Adjust the voltage at the test point **TP120** by **VR121**, that the value must be same as **TP107** (10mV) value measured on #4. process.
8. Press the ▶▶ button twice of time. Then the DVD laser will light ON and the FL display shows <**E3 00**>.
9. Measure the DC voltage at the status **DVD laser light ON**. Adjust the voltage at that status 35mV (±10mV) lower than "CD laser light ON " status by the trim resister VR120.
10. Press the ▶▶ button again. Confirm the DC voltage at the status **CD laser light ON**.
    (DC voltage must be 35mV higher than the status **DVD laser light ON**.)
11. Power OFF the mains switch (**POWER** BUTTON).

8-4 AS 調整

注意：

Laser光を直接見ると目を傷める恐れがあります。AS 調整の際にはLaserが点灯しますので必ず Laser 光を遮蔽して下さい。

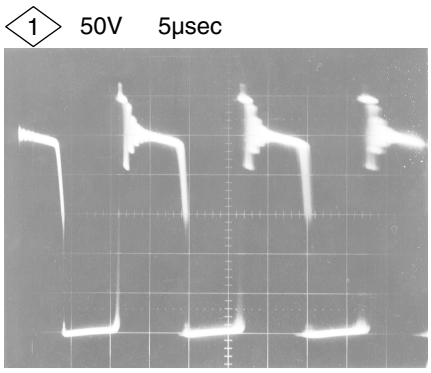
調整個所： VR120, VR121
テストポイント ：TP107(+), TP120(+) TP105 (GND)
測定器 ： デジタルマルチメーター

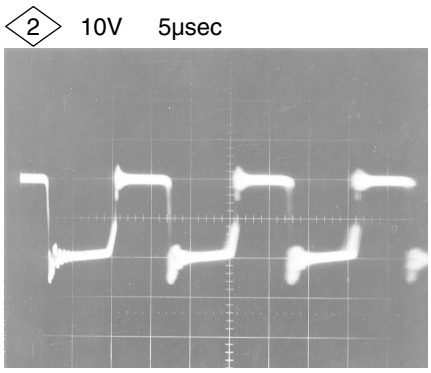
1. PLAY ボタンとSTOP ボタンを押しながら、電源スイッチを 押して下さい。
2. テストモード 2に入り、ディスプレイには[TEST 2]と表示され、数秒後[TEST2 OK] と表示されます。
3. ▶▶I ボタンを押し、AS （反射光）調整モードに入ります。ディスプレイには [E3 02] と表示されます。
4. TP107 のDC 電圧を測定し記録します。
5. ▶▶ ボタンを押し、DVD用 Laser を点灯させます。ディスプレイには［E3 00]と表示されますが、何もせず次に進んで下さい。
6. ▶▶ ボタンを押し、CD用Laser を点灯させます。ディスプレイには［E3 01］と表示されます。
7. VR121を回しTP120 の電圧を4.にて測定したTP107のDC電圧と同じ値（± 10mV）に調整します。
8. ▶▶ ボタンを 2回押し、DVD用 Laser を点灯させます。ディスプレイには［E3 00］と表示されます。
9. このときの電圧が CD Laser 点灯時のDC電圧より 35mV(± 10mV)低くなるように、VR120の半固定抵抗を調整します。
10. ▶▶ ボタンを押し、CD 用Laserを点灯させます。ディスプレイには［E3 01]と表示されます。この時、DC電圧が DVD用 Laser点灯時より35mV高くなっていることを確認してください。
11. 電源スイッチを押して、電源を切ります.

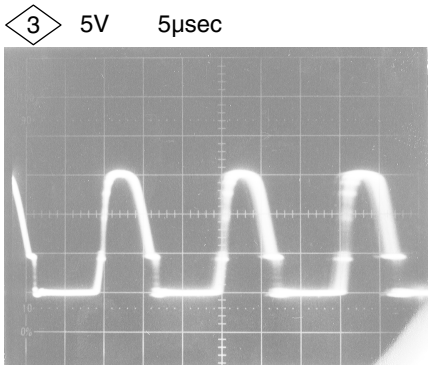
9. WAVEFORM

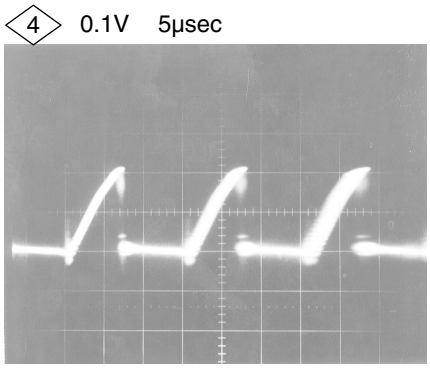
Power requirements (Refer the circuit diagram page 1-25 and 1-26)

100V AC

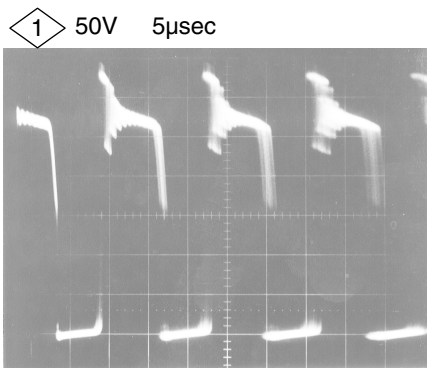


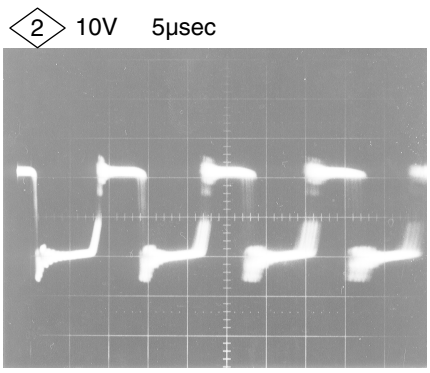


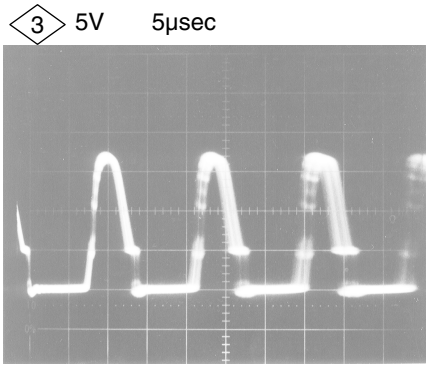


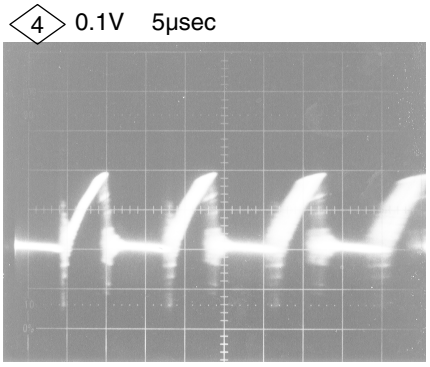


120V AV

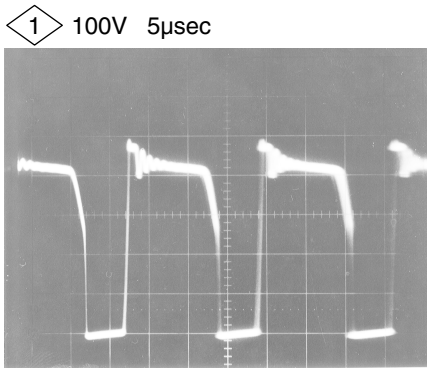


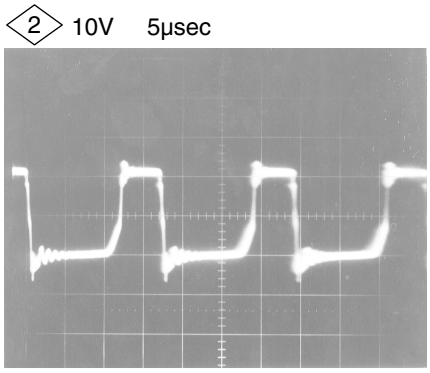


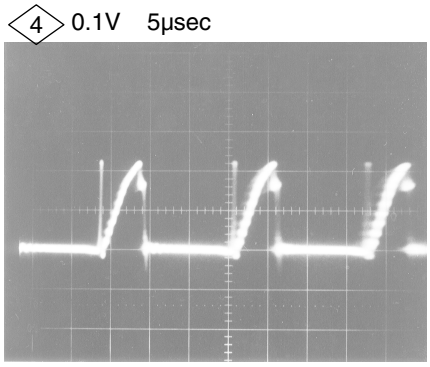




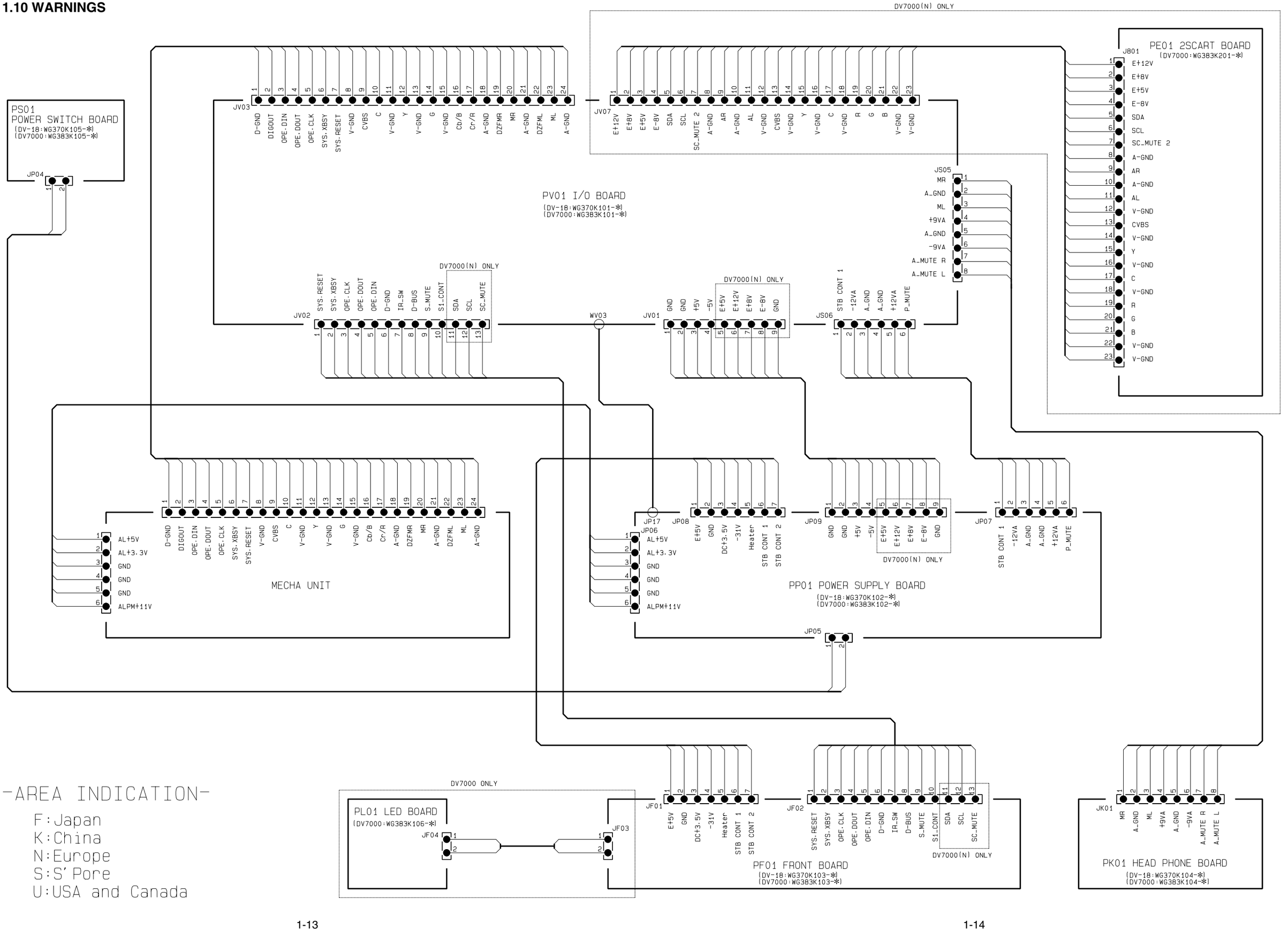
220V AC







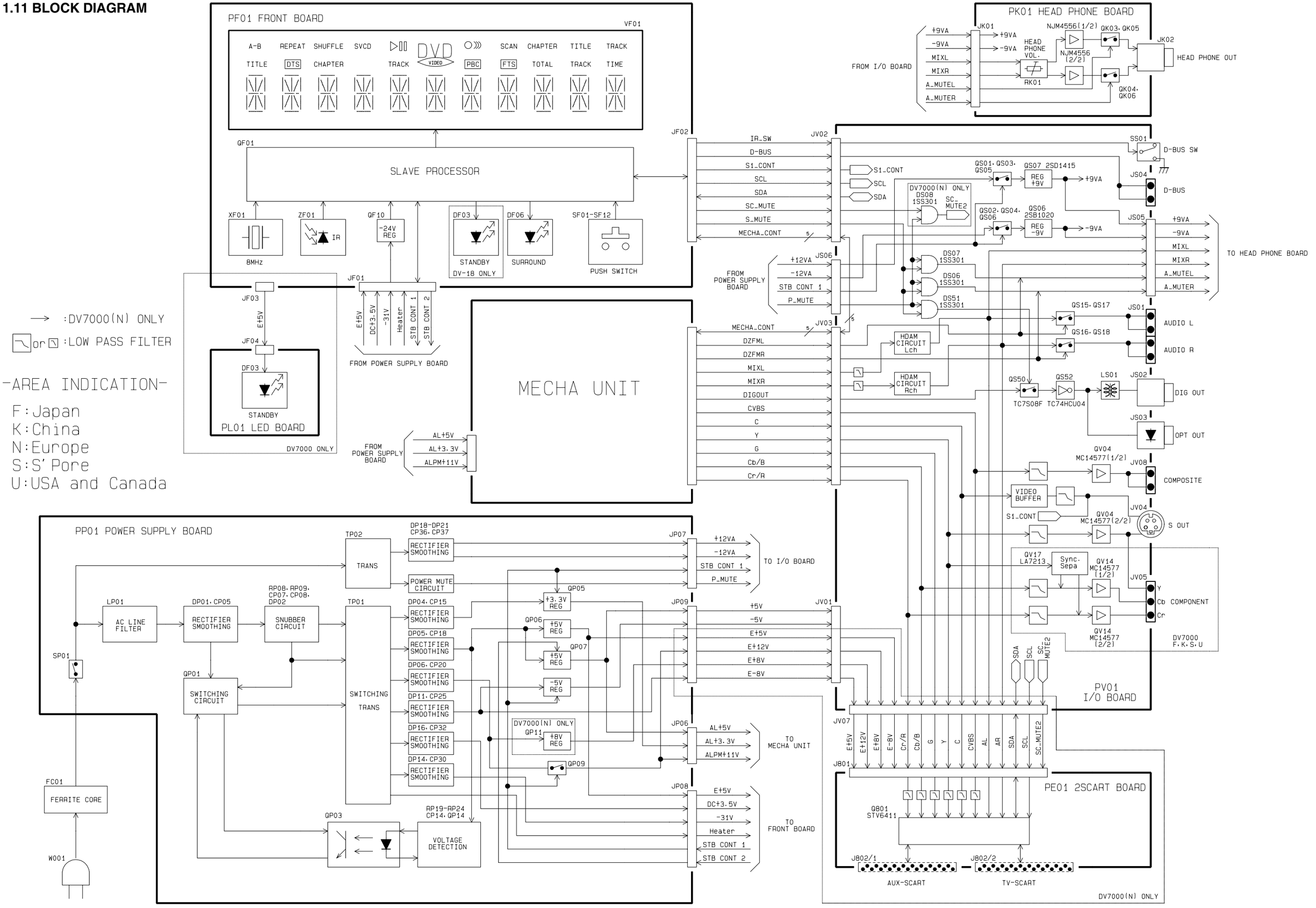
1.10 WARNINGS



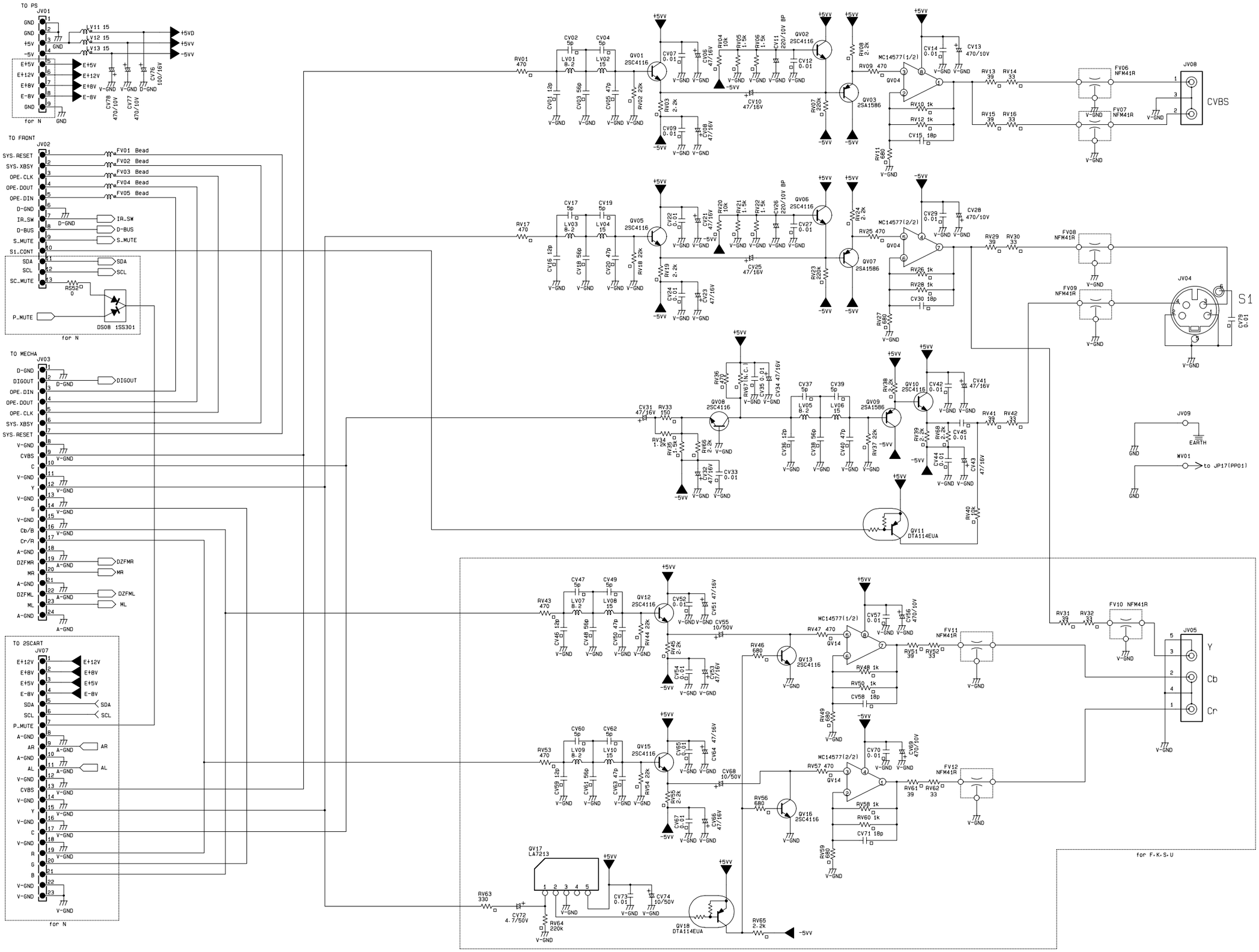
-AREA INDICATION-

F:Japan
K:China
N:Europe
S:S'Pore
U:USA and Canada

1.11 BLOCK DIAGRAM

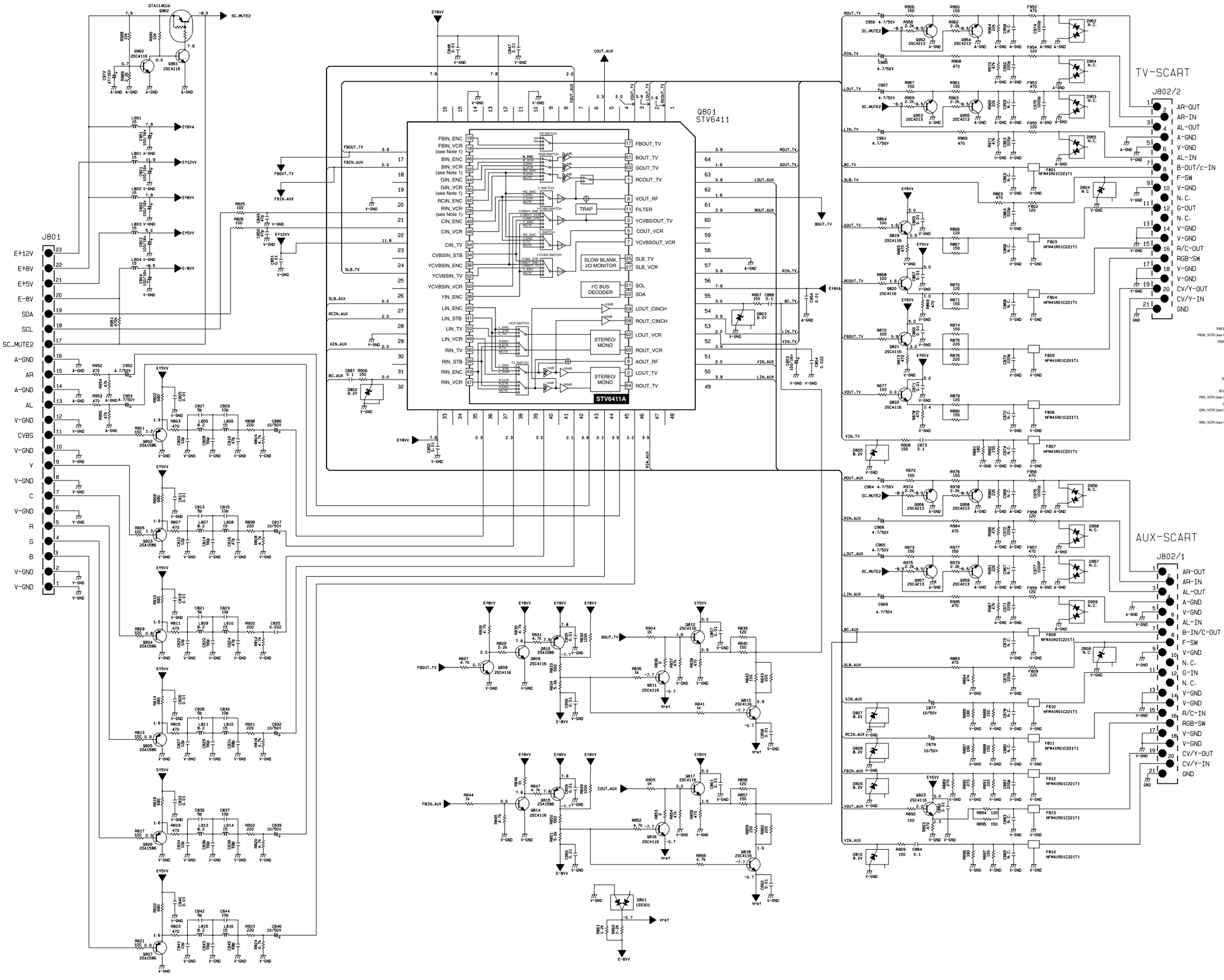


1.12 SCHEMATIC DIAGRAM AND PARTS LOCATION



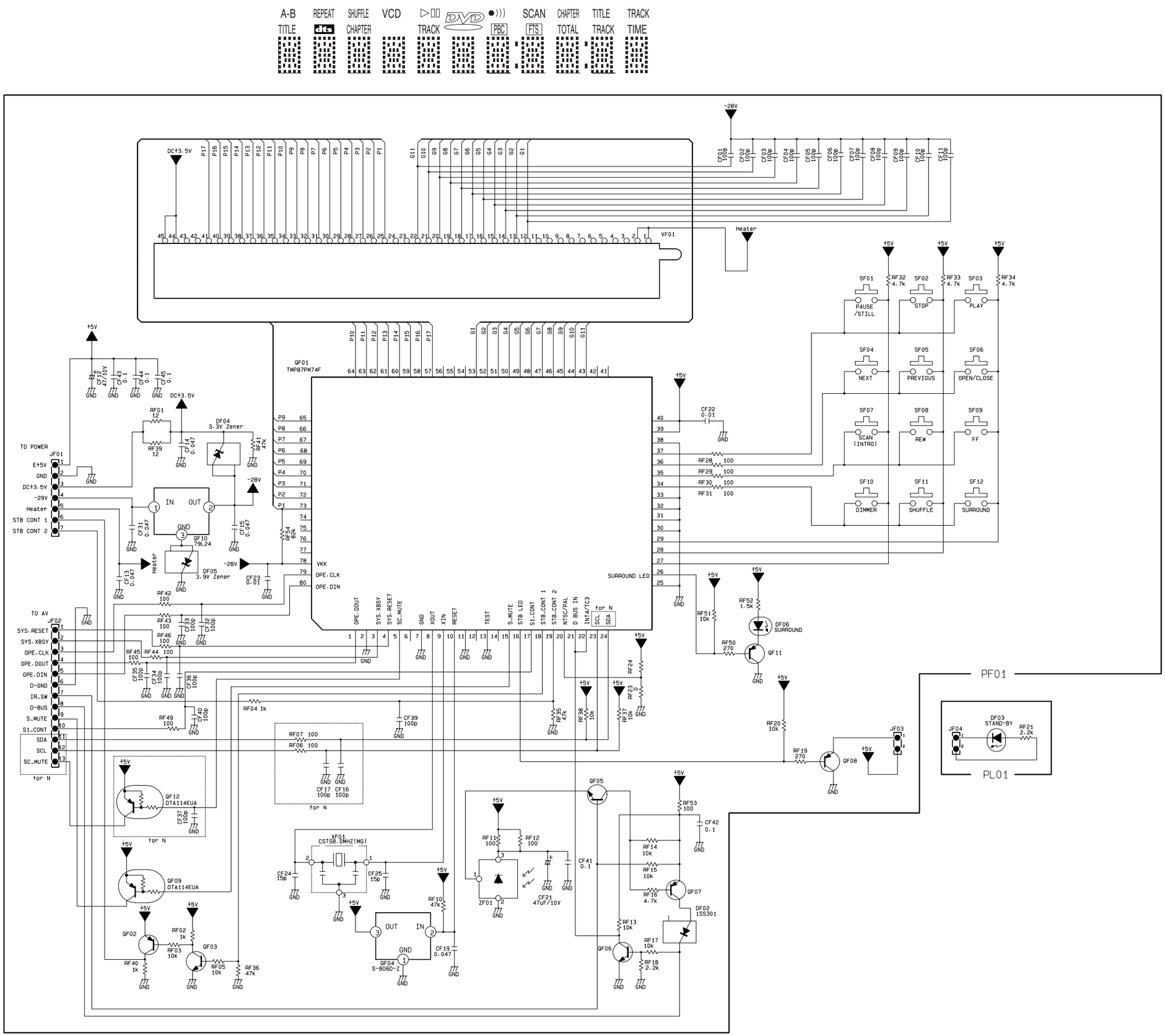
PH01

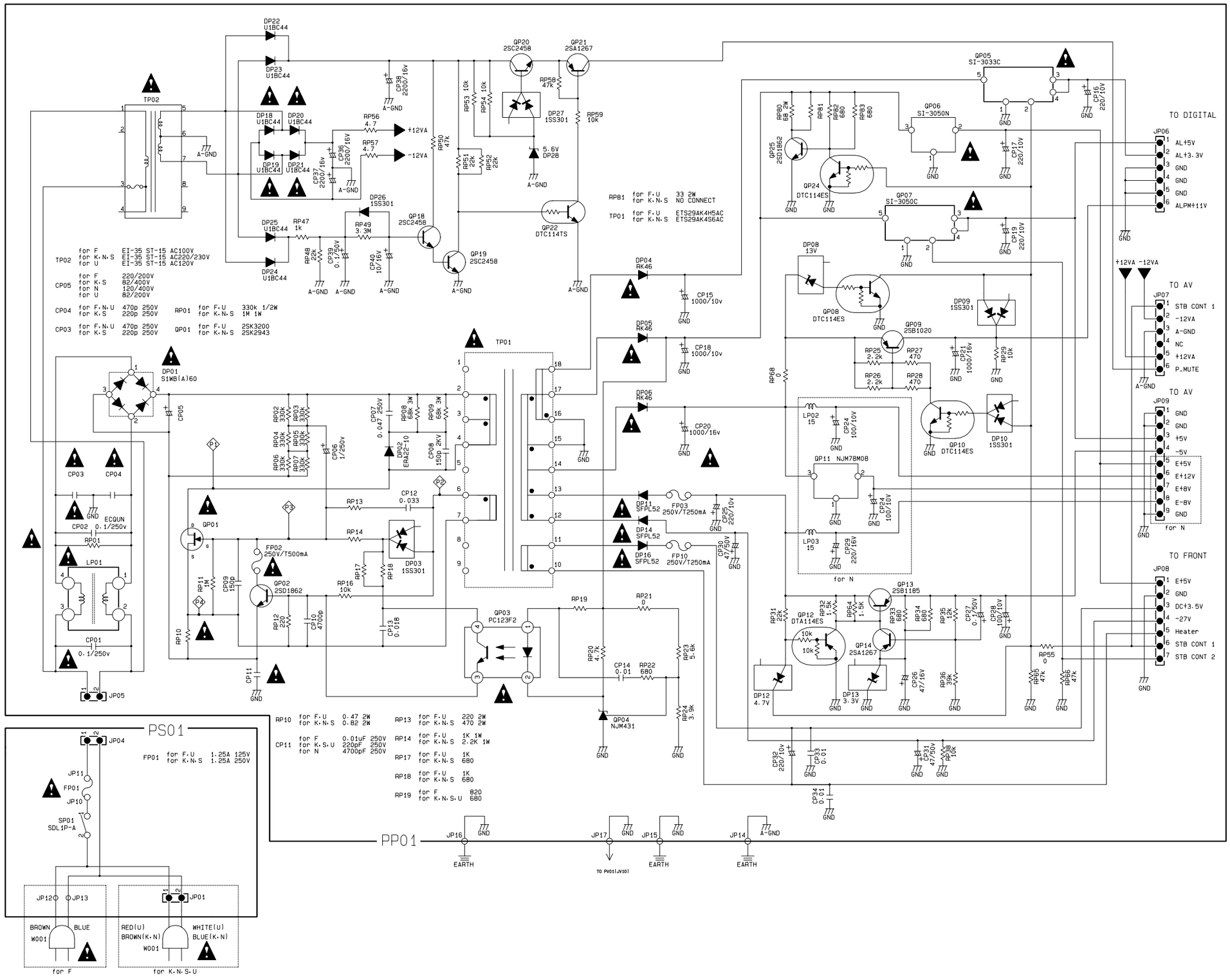
PV01



Pin Number	Symbol	Description
1	RCOUT_TV	Red/chroma Output, to TV Scart
2	LOUT_TV	Audio Left Output, to TV Scart
3	YCVBSOUT_TV	Y/CVBS Output, to TV scart
4	NC	Not Connected
5	COUT_VCR	Chroma Output, to VCR Scart
6	NC	Not Connected
7	YCVBSOUT_VCR	Y/CVBS Output, to VCR Scart
8	AOUT_RF	Audio (L+R) Output to RF Modulator
9	VOUT_RF	Video (CVBS) Output to RF Modulator
10	GNDV3	Video Switches Ground 3
11	FILTER	Chroma Trap Filter
12	V_{CCV3}	Video Switches Supply 3 (8V)
13	NC	Not Connected
14	GNDV2	Video Switches Ground 2
15	NC	Not Connected
16	V_{CCV2}	Video Switches Supply 2 (8V)
17	FBOUT_TV	Fast Blanking Output, to TV Scart
18	FBIN_VCR (see Note 1)	Fast Blanking Input, from VCR Scart
19	FBIN_ENC	Fast Blanking Input, from Encoder
20	ADD	I^2C Bus IC Address Programmation
21	SCL	I^2C Bus Clock
22	SDA	I^2C Bus Data
23	V_{CC12}	Slow Blanking Power Supply (12V)
24	NC	Not Connected
25	SLB_TV	Slow Blanking Input/Ouput from TV
26	NC	Not Connected
27	SLB_VCR	Slow Blanking Input/Ouput from VCR
28	RIN_VCR (see Note 1)	Red Input, from VCR Scart
29	GNDV1	Video Switches Ground 1
30	GIN_VCR (see Note 1)	Green Input, from VCR Scart
31	NC	Not Connected
32	BIN_VCR (see Note 1)	Blue Input, from VCR Scart
33	V_{CCV1}	Video Switches Supply 1 (8V)
34	CVBSIN_STB	CVBS Input from STB
35	NC	Not Connected
36	YCVBSIN_ENC	Y/CVBS Input from Encoder
37	NC	Not Connected
38	YIN_ENC	Y Input, from Encoder
39	RIN_STB	Audio Right Input, from STB
40	CIN_ENC	Chroma Input, from Encoder
41	LIN_STB	Audio Left Input, from STB
42	RCIN_ENC	Red/Chroma Input, from Encoder
43	RIN_ENC	Audio Right Input, from Encoder
44	GIN_ENC	Green Input, from Encoder
45	LIN_ENC	Audio Left Input, from Encoder
46	BIN_ENC	Blue Input, from Encoder
47	RIN_VCR	Audio Right Input, from VCR Scart
48	CIN_VCR	Chroma Input, from VCR Scart
49	LIN_VCR	Audio Left Input, from VCR
50	YCVBSIN_VCR	Y/CVBS Input from VCR Scart
51	V_{REF}	Voltage Reference Decoupling
52	YCVBSIN_TV	Y/CVBS Input, from TV Scart
53	LIN_TV	Audio Left Input, from TV Scart
54	CIN_TV	Chroma Input, from TV Scart
55	V_{CCA}	Audio Switches Supply (8V)
56	RIN_TV	Audio right input, from TV Scart
57	GNDA	Audio Switches Ground
58	ROUT_CINCH	Audio Right Output, to CINCH
59	LOUT_CINCH	Audio Left Output, to CINCH
60	ROUT_VCR	Audio Right Output, to VCR sCart
61	BOUT_TV	Blue Output, to TV Scart
62	LOUT_VCR	Audio Left Output, to VCR Scart
63	GOUT_TV	Green Output, to TV Scart
64	ROUT_TV	Audio Right Output, to TV Scart

Notes : 1. Pins (xx_VCR) identified as xx_AUX in STV6410A.
2. In application, all unused pins should be left open or high frequency bypassed to ground.

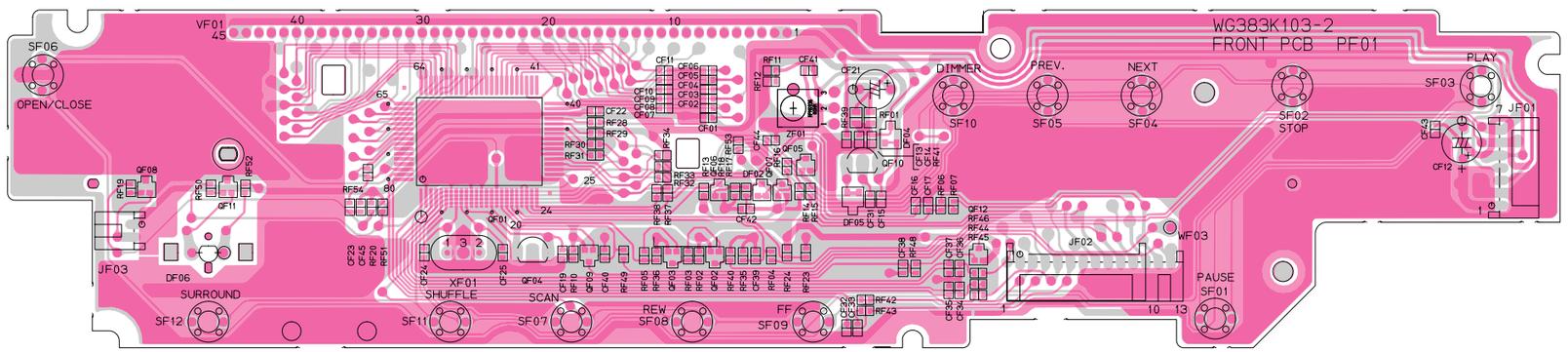

A-B
TITLE
REPEAT
SHUFFLE
CHAPTER
VCD
TRACK
PBC
SCAN
FTS
CHAPTER
TOTAL
TITLE
TRACK
TRACK
TIME
-28V
DC+3.5V
VF01
Heater
+5V
QF01
TMP87PM74F
SF01
PAUSE /STILL
SF02
STOP
SF03
PLAY
SF04
NEXT
SF05
PREVIOUS
SF06
OPEN/CLOSE
SF07
SCAN (INTRO)
SF08
REW
SF09
FF
SF10
DIMMER
SF11
SHUFFLE
SF12
SURROUND
TO POWER
JF01
E+5V
GND
DC+3.5V
-28V
Heater
STB CONT 1
STB CONT 2
DF04
3.3V Zener
QF10
79L24
DF05
3.9V Zener
TO AV
JF02
SYS.RESET
SYS.XBSY
OPE.CLK
OPE.DOUT
OPE.DIN
D-GND
IR_SW
D-BUS
S_MUTE
S1_CONT
SDA
SCL
SC_MUTE
for N
OPE.DOUT
SYS.XBSY
SYS.RESET
SC_MUTE
GND
XOUT
XIN
RESET
TEST
S.MUTE
STB LED
S1.CONT
STB.CONT 1
STB.CONT 2
NTSC/PAL
D BUS IN
INT4/TC3
SURROUND LED
QF11
DF06
SURROUND
QF12
DTA114EUA
QF09
DTA114EUA
QF02
QF03
QF04
S-806D-Z
QF05
QF06
QF07
DF02
1SS301
QF08
XF01
CSTS8.0MHZ(MG)
ZF01
PF01
PL01
DF03
STAND-BY
JF03
JF04


TP02
for F EI-35 ST-15 AC100V
for K·N·S EI-35 ST-15 AC220/230V
for U EI-35 ST-15 AC120V
for F 220/200V
for K·S 82/400V
for N 120/400V
for U 82/200V
CP05
CP04 for F·N·U 470p 250V
for K·S 220p 250V
RP01 for F·U 330k 1/2W
for K·N·S 1M 1W
CP03 for F·N·U 470p 250V
for K·S 220p 250V
QP01 for F·U 2SK3200
for K·N·S 2SK2943
RPB1 for F·U 33 2W
for K·N·S NO CONNECT
TP01 for F·U ETS29AK4H5AC
for K·N·S ETS29AK4S6AC
RP10 for F·U 0.47 2W
for K·N·S 0.82 2W
CP11 for F 0.01uF 250V
for K·S·U 220pF 250V
for N 4700pF 250V
RP13 for F·U 220 2W
for K·N·S 470 2W
RP14 for F·U 1K 1W
for K·N·S 2.2K 1W
RP17 for F·U 1K
for K·N·S 680
RP18 for F·U 1K
for K·N·S 680
RP19 for F 820
for K·N·S·U 680
FP01 for F·U 1.25A 125V
for K·N·S 1.25A 250V
TO DIGITAL
TO AV
TO AV
TO FRONT
for N
for F
for K·N·S·U
PS01
PP01
TO PY01(JV10)
EARTH
A-GND
GND

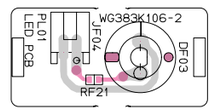
1.13 PARTS LOCATION

PF01

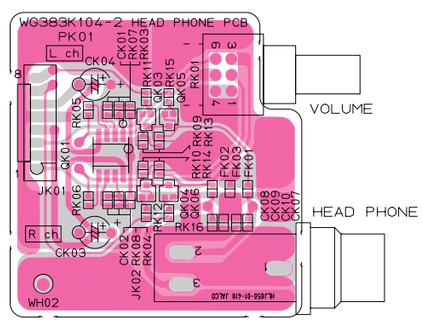
QF08 QF11 QF01 QF06 QF07 QF05 QF10
QF04 QF09 QF03 QF02 QF12



PL01



PK01 QK03 QK05
QK01 QK04 QK06



PP01

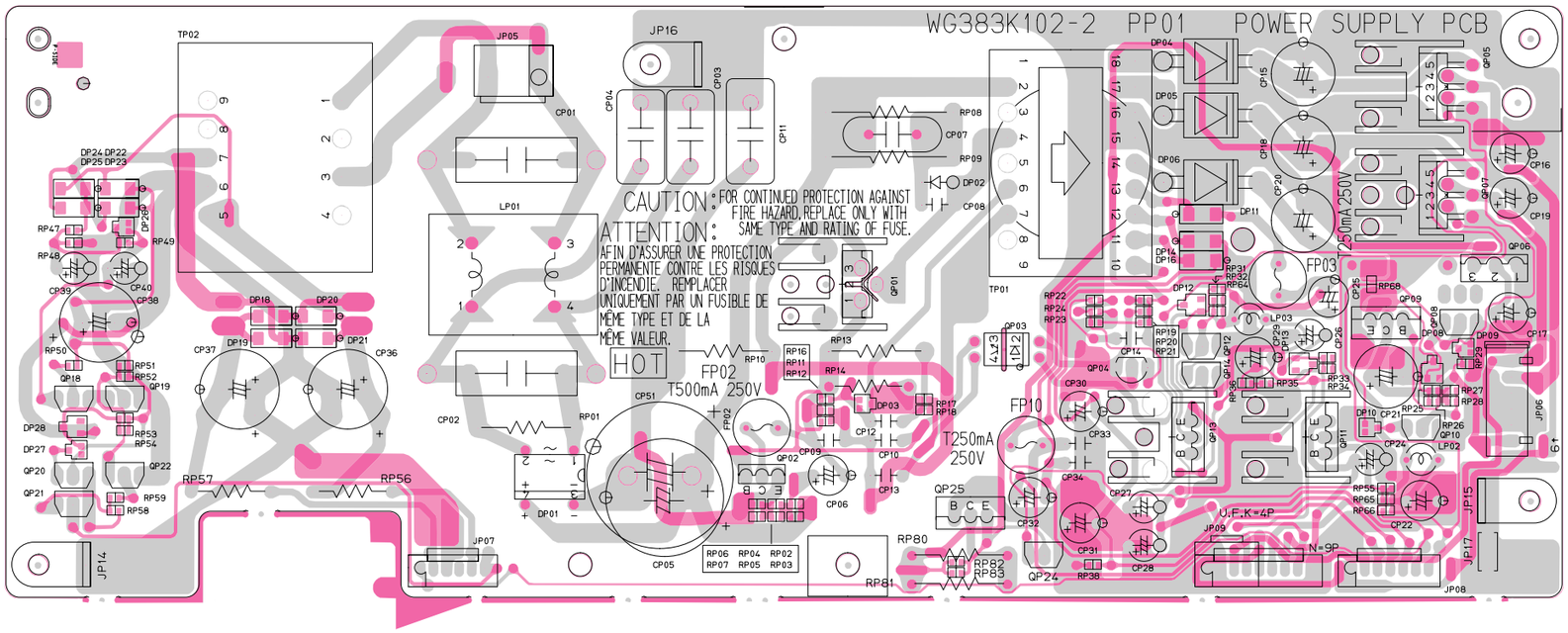
QP18 QP19
QP20 - QP22

QP01
QP02

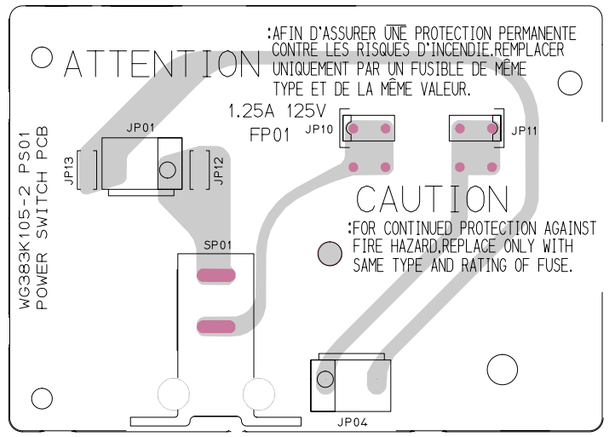
QP03
QP25 QP24

QP04 QP12 QP14 QP13
QP13 QP11

QP05 QP07
QP09 QP08 QP06
QP10

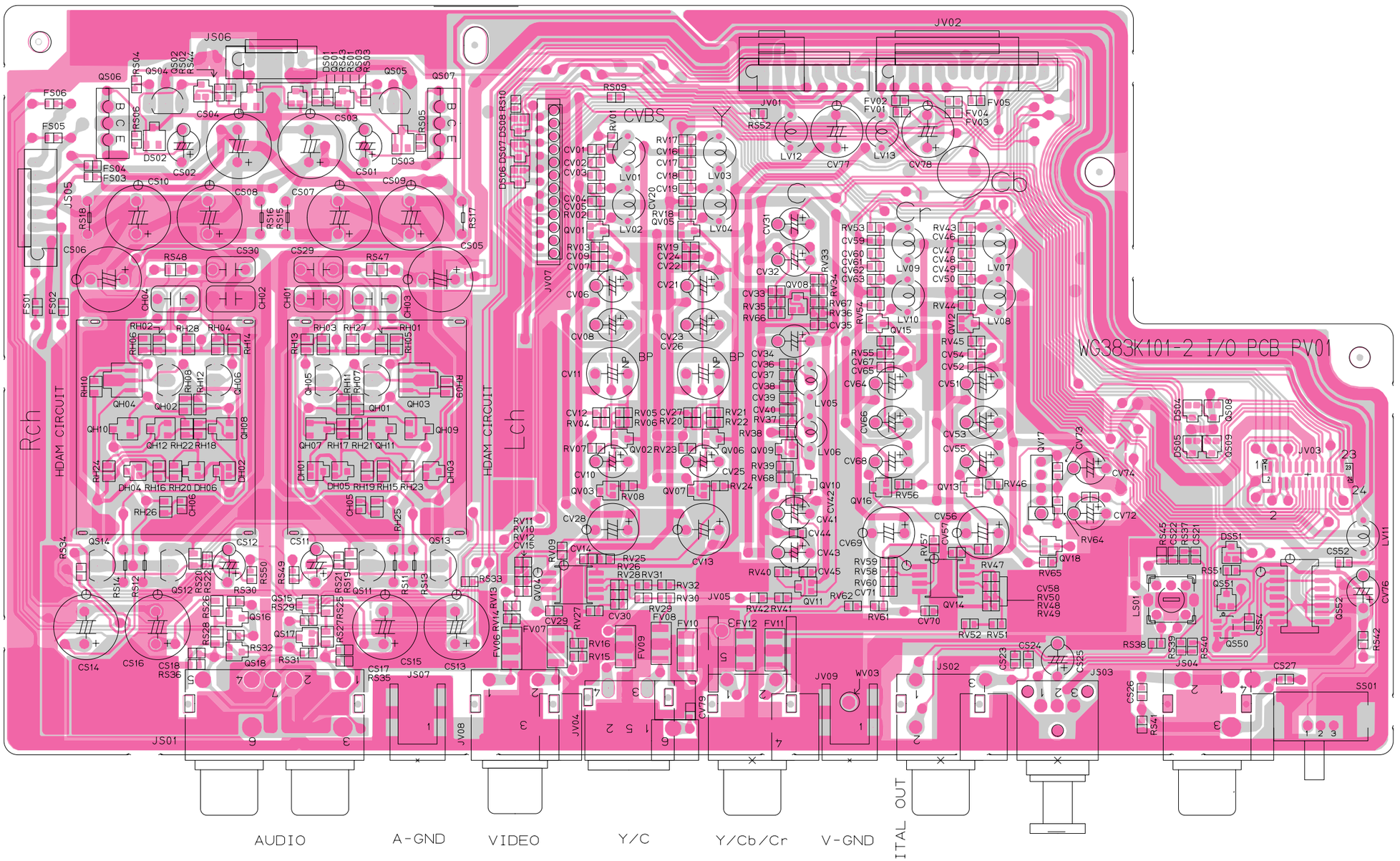


PS01

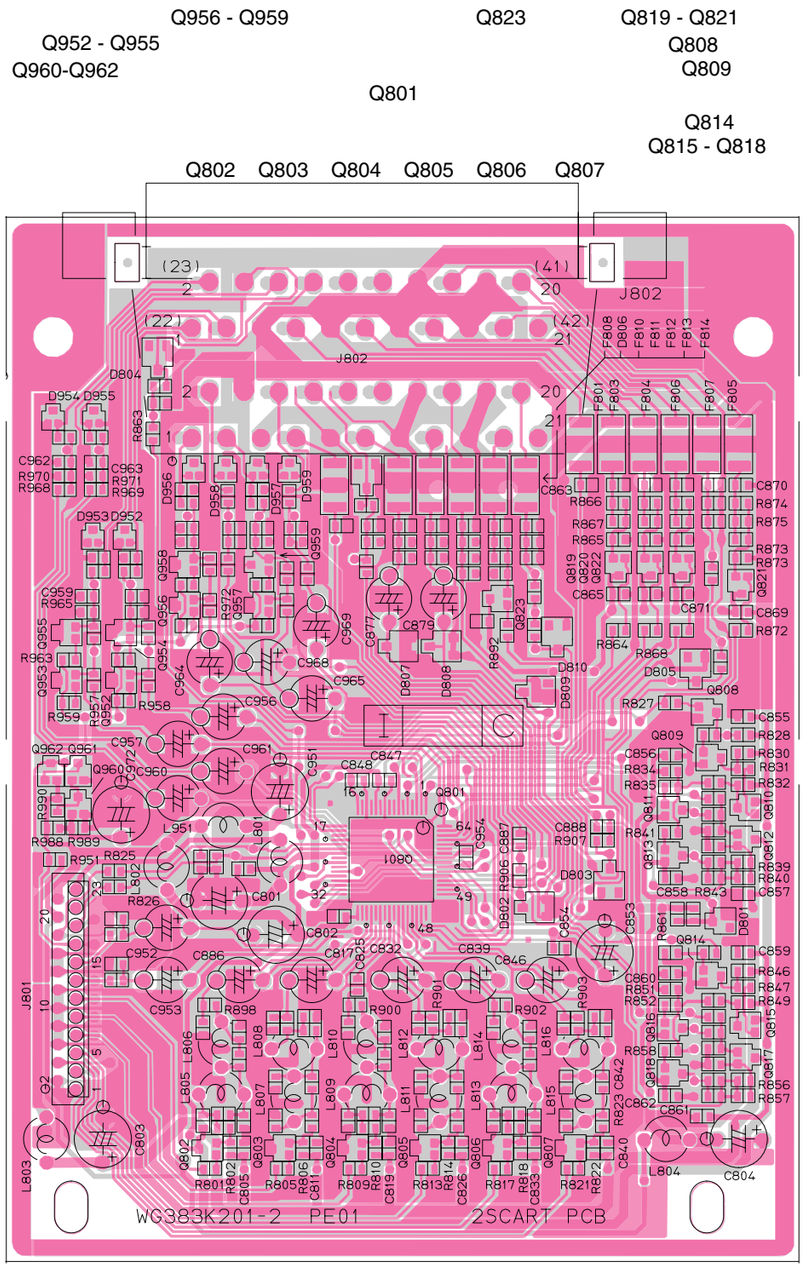


QS04 QS02 QS01 QS03 QS05 QS07
QH02 - QH12 QH03 - QH11
(Even number) (Odd number)
QS14 QS12 QS15 - QS18 QS11 QS13

QV10 QV05 QV08 QV15 QV12
QV03 QV02 QV07 QV06 QV09 QV10 QV16 QV13 QV17 QV18 QS08 QS09
QV04 QV11 QV14 QV18 QS51 QS50 QS52



PE01

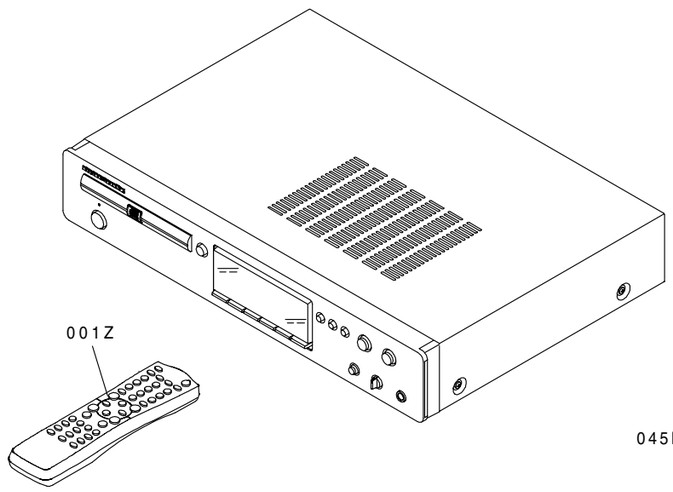


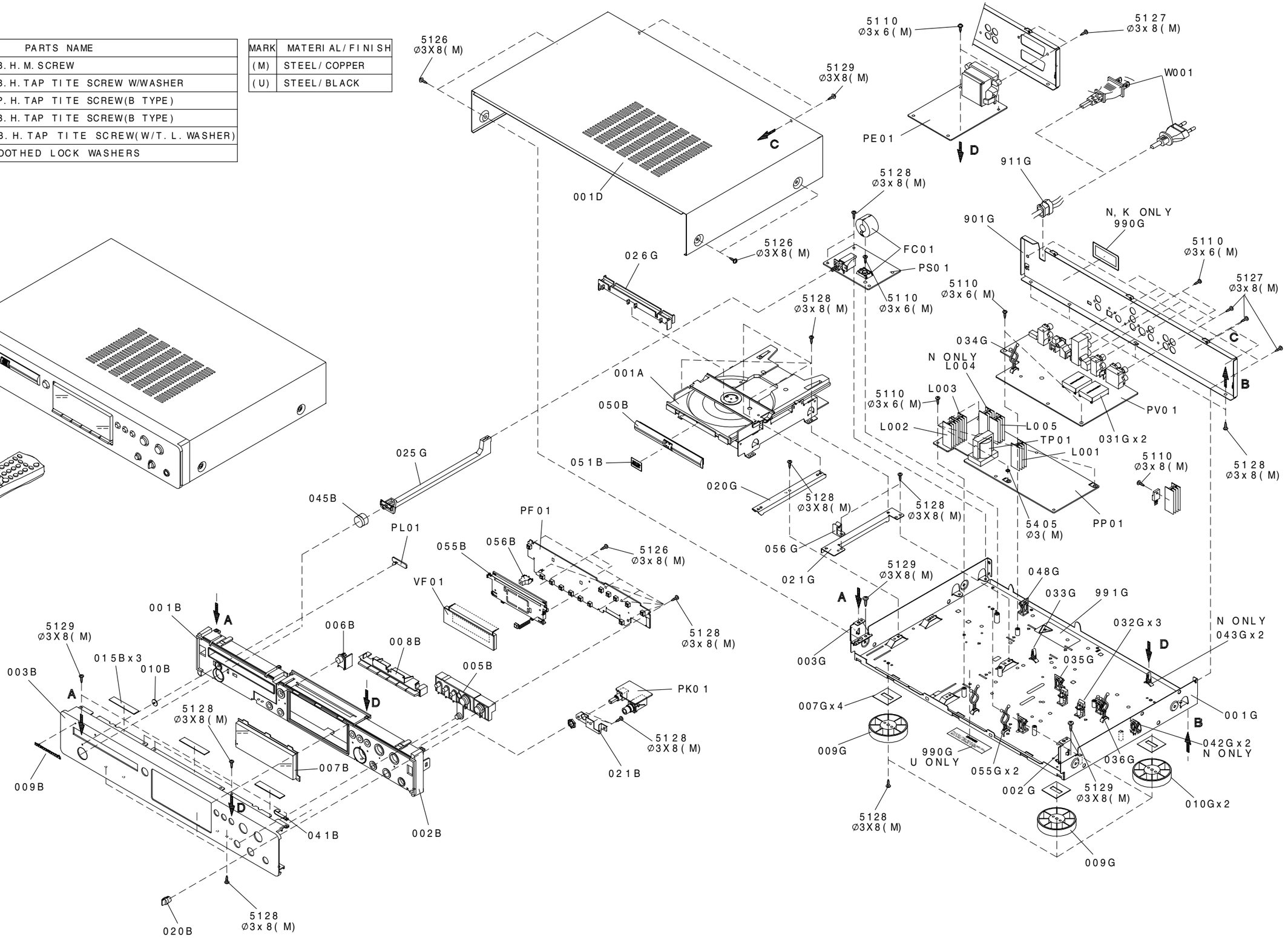
1.14 EXPLODED VIEW AND PARTS LIST

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
001B	BLACK	9965 000 05014	FRONT CHASSIS PL(L)BLK	383K105010
001B	GOLD	9965 000 05015	FRONT CHASSIS PL(L)GLD	383K105110
002B	BLACK	9965 000 05016	FRONT CHASSIS PL(R)BLK	383K105020
002B	GOLD	9965 000 05017	FRONT CHASSIS PL(R)GLD	383K105120
003B	BLACK	9965 000 05018	FRONT PANEL AL DV7000 BL	383K248010
003B	GOLD	9965 000 05019	FRONT PANEL AL DV7000 GL	383K248110
005B	BLACK	9965 000 05020	BUTTON FUNCTION BLK	383K270010
005B	GOLD	9965 000 05021	BUTTON FUNCTION GLD	383K270110
006B	BLACK	9965 000 05022	BUTTON OPEN/CLOSE BLK	383K270020
006B	GOLD	9965 000 05023	BUTTON OPEN/CLOSE GLD	383K270120
007B		9965 000 05024	WINDOW DV7000	383K158010
008B		9965 000 05025	BUTTON SUB FUNCTION	386K270090
009B		4822 454 11825	MARANTZ BADGE (BL)	185J251010
010B		9965 000 01393	LENS STANDBY	312J355010
020B	BLACK	4822 411 20336	KNOB PHONE BLACK	284T154310
020B	GOLD	9965 000 00580	KNOB PHONE GOLD	284T154240
045B	BLACK	9965 000 01975	BUTTON POWER BLACK	255W270010
045B	GOLD	9965 000 01395	BUTTON POWER GOLD	255W270110
050B	BLACK	9965 000 05026	ESCUTCHEON TRAY FRONT BLK	383K063010
050B	GOLD	9965 000 05027	ESCUTCHEON TRAY FRONT GLD	383K063110
051B	BLACK	9965 000 05028	DVD BADGE BLK	386K251030
051B	GOLD	9965 000 05029	DVD BADGE GLD	386K251130
009G		9965 000 05030	LEG (GOLD HOT STAMP) F	383K057010
010G		9965 000 05031	LEG (GOLD HOT STAMP) R	383K057110
025G		9965 000 00362	LINK,POWER SW.	349K121010
911G	/F		BUSHING MAINS CORD	318K259020
911G	/K, /S /N, /U	4822 532 60948	BUSHING MAINS CORD	450H259010
001A		9965 000 04619	DVD MODULE UNIT DVD MECHA+DIGITAL BOARD	ZK370K0100
WV01		9965 000 04963	FFC MECHA- AV	YU24075510
WV02	/N	9965 000 04965	FFC AV- 2SCART	YU23135520
⚠ W001	/F		MAINS CORD 15A 125V OFC HANAI	YC01800430
⚠ W001	/K1B		MAINS CORD FOR BS(MAYOR)	YC01800760
⚠ W001	/K1G		MAINS CORD CCEE APP.(AC250V 10A)+ VAR2P	YC01800880
⚠ W001	/S, /N	4822 321 11343	MAINS CORD	YC01800790
⚠ W001	/U		MAINS CORD UL/CSA NON-INTEGRAL	YC02000880
			PACKING	
001T	/F		USER GUIDE	383K851110
001T	/K, /S		USER GUIDE	383K851350
001T	/N	9965 000 05032	USER GUIDE	383K851320
001T	/U		USER GUIDE	383K851310
001Z		9965 000 05013	REMOTE COMMANDER RC7000DV	ZK383K0010
			NOT STANDARD SPARE PARTS	
001S			PACKING CASE DV7000	383K801010
002S			CUSHION	386K809010

SYMBOL	STYLE	PARTS NAME
5110		+B. H. M. SCREW
5126		+B. H. TAP TITE SCREW W/WASHER
5127		+P. H. TAP TITE SCREW(B TYPE)
5128		+B. H. TAP TITE SCREW(B TYPE)
5129		+B. H. TAP TITE SCREW(W/T. L. WASHER)
5405		TOOTHED LOCK WASHERS

MARK	MATERIAL/FINISH
(M)	STEEL/COPPER
(U)	STEEL/BLACK





1.15 ELECTRICAL PARTS LIST

ASSIGNMENT OF COMMON PARTS CODES.

RESISTORS

R✳✳✳: 1) GD05 × × × 140, Carbon film fixed resistor, ±5% 1/4W
R✳✳✳: 2) GD05 × × × 160, Carbon film fixed resistor, ±5% 1/6W
① —— Resistance value

Examples ;
① Resistance value

0.1 Ω 001	10 Ω 100	1 kΩ 102	100 kΩ 104
0.5 Ω 005	18 Ω 180	2.7 kΩ 272	680 kΩ 684
1 Ω 010	100 Ω 101	10 kΩ 103	1 MΩ 105
6.8 Ω 068	390 Ω 391	22 kΩ 223	4.7 MΩ 475

Note : Please distinguish 1/4W from 1/6W by the shape of parts used actually.

CAPACITORS

C✳✳✳: CERAMIC CAP.
3) DD1 × × × × 370, Ceramic capacitor
② ③ Disc type
Temp.coeff.P350 ～N1000, 50V
③ —— Capacity value
② —— Tolerance

Examples ;
② Tolerance (Capacity deviation)
±0.25 pF 0
±0.5 pF 1
±5% 5
✳ Tolerance of COMMON PARTS handled here are as follows :
0.5 pF ～ 5 pF .... ±0.25 pF
6 pF ～ 10 pF .... ±0.5 pF
12 pF ～ 560 pF .... ±5%
③ Capacity value

0.5 pF 005	3 pF 030	100 pF 101
1 pF 010	10 pF 100	220 pF 221
1.5 pF 015	47 pF 470	560 pF 561

C✳✳✳ : CERAMIC CAP.
4) DK16 × × × 300, High dielectric constant ceramic capacitor
④ Disc type
Temp.chara. 2B4, 50V
④ —— Capacity value

Examples ;
④ Capacity value

100 pF 101	1000 pF 102	10000 pF 103
470 pF 471	2200 pF 222	

C✳✳✳ : 5) ELECTROLY CAP. (⫩), 6) FILM CAP. (⫟)
5) EA × × × × × × 10, Electrolytic capacitor
⑤ ⑥ One-way lead type, Tolerance ±20%
⑥ —— Working voltage
⑤ —— Capacity value

Examples ;
⑤ Capacity value

0.1 µF 104	4.7 µF 475	100 µF 107
0.33 µF 334	10 µF 106	330 µF 337
1 µF 105	22 µF 226	1100 µF 118
		2200 µF 228

⑥ Working voltage

6.3V 006	25V 025
10V 010	35V 035
16V 016	50V 050

6) DF15 × × × 350 —→ Plastic film capacitor
DF15 × × × 310 —→ One-way type, Mylar ±5% 50V
DF16 × × × 310 —→ Plastic film capacitor
One-way type, Mylar ±10% 50V
⑦ —— Capacity value

Examples ;
⑦ Capacity value

0.001 µF (1000 pF) 102	0.1 µF 104
0.0018 µF 182	0.56 µF 564
0.01 µF 103	1 µF 105
0.015 µF 153	

NOTE : 1) The above CODES (R✳✳✳ , R✳✳✳ , C✳✳✳ , C✳✳✳ and C ✳✳✳) are omitted on the schematic diagram in some case.
2) On the occasion, be confirmed the common parts on the parts list.
3) Refer to “Common Parts List” for the other common parts (**RI05**, **DD4**, **DK4**).

NOTE ON SAFETY FOR FUSIBLE RESISTOR :

The suppliers and their type numbers of fusible resistors are as follows;

1. KOA Corporation

Part No. (MJI)	Type No. (KOA)	Description
NH05 × × × 140	RF25S × × × × ΩJ	(±5% 1/4W)
NH05 × × × 120	RF50S × × × × ΩJ	(±5% 1/2W)
NH85 × × × 110	RF73B2A × × × × ΩJ	(±5% 1/10W)
NH95 × × × 140	RF73B2E × × × × ΩJ	(±5% 1/4W)

✳ Resistance value — Resistance value (0.1 Ω – 10 kΩ)

2. Matsushita Electronic Components Co., Ltd

Part No. (MJI)	Type No. (MEC)	Description
NF05 × × × 140	ERD-2FCJ × × ×	(±5% 1/4W)
RF05 × × × 140		
NF02 × × × 140	ERD-2FCG × × ×	(±2% 1/4W)
RF02 × × × 140		

✳ Resistance value — ✳ Resistance value

Examples ;
✳ Resistance value

0.1 Ω 001	10 Ω 100	1 kΩ 102	100 kΩ 104
0.5 Ω 005	18 Ω 180	2.7 kΩ 272	680 kΩ 684
1 Ω 010	100 Ω 101	10 kΩ 103	1 MΩ 105
6.8 Ω 068	390 Ω 391	22 kΩ 223	4.7 MΩ 475

ABBREVIATION AND MARKS

ANT.	: ANTENNA	BATT.	: BATTERY
CAP.	: CAPACITOR	CER.	: CERAMIC
CONN.	: CONNECTING	DIG.	: DIGITAL
HP	: HEADPHONE	MIC.	: MICROPHONE
µ-PRO	: MICROPROCESSOR	REC.	: RECORDING
RES.	: RESISTOR	SPK	: SPEAKER
SW	: SWITCH	TRANSF.	: TRANSFORMER
TRIM.	: TRIMMING	TRS.	: TRAMSISTOR
VAR.	: VARIABLE	X'TAL	: CRYSTAL

NOTE ON SAFETY :

Symbol ⚠ Fire or electrical shock hazard. Only original parts should be used to replaced any part marked with symbol ⚠. Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

安全上の注意：

⚠がついている部品は、安全上重要な部品です。必ず指定されている部品番号の部品を使用して下さい。

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
			PE01- SCART CIRCUIT BOARD [/N VERSION]	
			PE01-CAPACITORS	
C802	/N	4822 124 90354	ELECT. 100µF M 16V RA-2	OA10701620
C804	/N	4822 124 90354	ELECT. 100µF M 16V RA-2	OA10701620
C806	/N	4822 126 11663	CER. CHIP 12pF ±5% CG 50V	DD95120300
C808	/N	4822 122 33782	CER. CHIP 56pF	DD95560300
C810	/N	4822 122 33777	CER. CHIP 47pF ±5% CG 50V	DD95470300
C812	/N	4822 126 11663	CER. CHIP 12pF ±5% CG 50V	DD95120300
C814	/N	4822 122 33782	CER. CHIP 56pF	DD95560300
C816	/N	4822 122 33777	CER. CHIP 47pF ±5% CG 50V	DD95470300
C819	/N	4822 126 11703	CER. CHIP 0.01µF	DK98103300
C821	/N	9965 000 04997	CER. CHIP 5pF ±0.25pF CH	DD90050300
C823	/N	4822 122 33741	CER. CHIP 10pF ±0.5pF CH	DD91100300
C825	/N	4822 126 11704	CER. CHIP 0.022µF	DK98223300
C827	/N	4822 126 11663	CER. CHIP 12pF ±5% CG 50V	DD95120300
C829	/N	4822 122 33782	CER. CHIP 56pF	DD95560300
C831	/N	4822 126 13956	CER. CHIP 68pF	DD95680300
C833	/N	4822 126 11703	CER. CHIP 0.01µF	DK98103300
C835	/N	9965 000 04997	CER. CHIP 5pF ±0.25pF CH	DD90050300
C836	/N	4822 122 33782	CER. CHIP 56pF	DD95560300
C838	/N	4822 126 13956	CER. CHIP 68pF	DD95680300
C840	/N	4822 126 11703	CER. CHIP 0.01µF	DK98103300
C842	/N	9965 000 04997	CER. CHIP 5pF ±0.25pF CH	DD90050300
C844	/N	4822 122 33741	CER. CHIP 10pF ±0.5pF CH	DD91100300
C846	/N	5322 124 21731	ELECT. 10µF M 50V RA-2	OA10605020
C848	/N	4822 126 11703	CER. CHIP 0.01µF	DK98103300
C850	/N	4822 122 33777	CER. CHIP 47pF ±5% CG 50V	DD95470300
C852	/N	4822 126 11703	CER. CHIP 0.01µF	DK98103300
C854	/N	4822 126 11704	CER. CHIP 0.022µF	DK98223300
C856	/N	4822 126 11703	CER. CHIP 0.01µF	DK98103300
C858	/N	4822 126 11703	CER. CHIP 0.01µF	DK98103300
C860	/N	4822 126 11703	CER. CHIP 0.01µF	DK98103300
C862	/N	4822 126 11703	CER. CHIP 0.01µF	DK98103300
C865	/N	4822 126 11703	CER. CHIP 0.01µF	DK98103300
C869	/N	4822 126 11703	CER. CHIP 0.01µF	DK98103300
C871	/N	4822 126 11703	CER. CHIP 0.01µF	DK98103300
C876	/N	4822 126 13883	CER. CHIP 220pF ±5% CG 50V	DD95221300
C881	/N	4822 126 13883	CER. CHIP 220pF ±5% CG 50V	DD95221300
C884	/N	4822 126 11687	CER. CHIP 0.1µF	DK98104200
C887	/N	4822 126 11687	CER. CHIP 0.1µF	DK98104200
C951	/N	4822 124 90354	ELECT. 100µF M 16V RA-2	OA10701620
C953	/N	4822 124 80067	ELECT. 4.7µF M 50V RA-2	OA47505020
C956	/N	4822 124 80067	ELECT. 4.7µF M 50V RA-2	OA47505020
C960	/N	4822 124 80067	ELECT. 4.7µF M 50V RA-2	OA47505020
C962	/N	4822 126 13883	CER. CHIP 220pF ±5% CG 50V	DD95221300
C964	/N	4822 124 80067	ELECT. 4.7µF M 50V RA-2	OA47505020
C968	/N	4822 124 80067	ELECT. 4.7µF M 50V RA-2	OA47505020
C970	/N	4822 126 13883	CER. CHIP 220pF ±5% CG 50V	DD95221300
C972	/N	4822 124 41539	ELECT. 47µF 16V	OA47601620
C975	/N	5322 126 11578	CER. CHIP 1000pF	DK96102300
C977	/N	5322 126 11578	CER. CHIP 1000pF	DK96102300
			PE01-RESISTORS	
R801	/N	4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
R802	/N	4822 051 30681	CHIP 680Ω ±5% 1/16W	NN05681610
R803	/N	4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
R804	/N	4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
R805	/N	4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
R806	/N	4822 051 30681	CHIP 680Ω ±5% 1/16W	NN05681610
R807	/N	4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
R808	/N	4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
R809	/N	4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
R810	/N	4822 051 30681	CHIP 680Ω ±5% 1/16W	NN05681610
R811	/N	4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
R812	/N	4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
R813	/N	4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
R814	/N	4822 051 30681	CHIP 680Ω ±5% 1/16W	NN05681610
R815	/N	4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
R816	/N	4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
R817	/N	4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
R818	/N	4822 051 30681	CHIP 680Ω ±5% 1/16W	NN05681610
R819	/N	4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
R820	/N	4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
R821	/N	4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
R822	/N	4822 051 30681	CHIP 680Ω ±5% 1/16W	NN05681610
R823	/N	4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
R824	/N	4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
R825	/N	4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
R826	/N	4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
R827	/N	4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
R828	/N	4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
R829	/N	4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
R830	/N	4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
R831	/N	4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
R832	/N	4822 117 13632	CHIP 100kΩ ±5% 1/16W	NN05104610
R833	/N	4822 051 30561	CHIP 560Ω ±5% 1/16W	NN05561610
R834	/N	4822 051 30562	CHIP 5.6kΩ ±5% 1/16W	NN05562610
R835	/N	4822 051 30102	CHIP 1kΩ ±5% 1/16W	NN05102610
R836	/N	4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
R837	/N	4822 117 12925	CHIP 47kΩ ±5% 1/16W	NN05473610
R838	/N	4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
R839	/N	4822 051 30121	CHIP 120Ω ±5% 1/16W	NN05121610
R840	/N	4822 051 30151	CHIP 150Ω ±5% 1/16W	NN05151610
R841	/N	4822 051 30102	CHIP 1kΩ ±5% 1/16W	NN05102610
R842	/N	4822 051 30151	CHIP 150Ω ±5% 1/16W	NN05151610
R843	/N	4822 051 30221	CHIP 220Ω ±5% 1/16W	NN05221610
R844	/N	4822 051 30102	CHIP 1kΩ ±5% 1/16W	NN05102610
R845	/N	4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
R846	/N	4822 051 30102	CHIP 1kΩ ±5% 1/16W	NN05102610
R847	/N	4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
R849	/N	4822 117 13632	CHIP 100kΩ ±5% 1/16W	NN05104610
R850	/N	4822 051 30561	CHIP 560Ω ±5% 1/16W	NN05561610
R851	/N	4822 051 30562	CHIP 5.6kΩ ±5% 1/16W	NN05562610
R852	/N	4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
R853	/N	4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
R854	/N	4822 117 12925	CHIP 47kΩ ±5% 1/16W	NN05473610
R855	/N	4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
R856	/N	4822 051 30121	CHIP 120Ω ±5% 1/16W	NN05121610
R857	/N	4822 051 30151	CHIP 150Ω ±5% 1/16W	NN05151610
R858	/N	4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
R859	/N	4822 051 30151	CHIP 150Ω ±5% 1/16W	NN05151610
R860	/N	4822 051 30221	CHIP 220Ω ±5% 1/16W	NN05221610
R861	/N	4822 117 11817	CHIP 1.2kΩ ±5% 1/16W	NN05122610
R862	/N	4822 117 11817	CHIP 1.2kΩ ±5% 1/16W	NN05122610
R863	/N	4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
R864	/N	4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
R865	/N	4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
R866	/N	4822 051 30121	CHIP 120Ω ±5% 1/16W	NN05121610
R867	/N	4822 051 30151	CHIP 150Ω ±5% 1/16W	NN05151610
R868	/N	4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
R869	/N	4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
R870	/N	4822 051 30121	CHIP 120Ω ±5% 1/16W	NN05121610
R871	/N	4822 051 30151	CHIP 150Ω ±5% 1/16W	NN05151610
R872	/N	4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
R873	/N	4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
R874	/N	4822 051 30151	CHIP 150Ω ±5% 1/16W	NN05151610
R875	/N	4822 051 30221	CHIP 220Ω ±5% 1/16W	NN05221610
R876	/N	4822 051 30221	CHIP 220Ω ±5% 1/16W	NN05221610
R877	/N	4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
R878	/N	4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
R879	/N	4822 051 30121	CHIP 120Ω ±5% 1/16W	NN05121610
R880	/N	4822 051 30151	CHIP 150Ω ±5% 1/16W	NN05151610
R881	/N	4822 051 30181	CHIP 180Ω ±5% 1/16W	NN05181610
R882	/N	4822 051 30151	CHIP 150Ω ±5% 1/16W	NN05151610

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
R883	/N	4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
R884	/N	4822 117 12925	CHIP 47kΩ ±5% 1/16W	NN05473610
R885	/N	4822 051 30181	CHIP 180Ω ±5% 1/16W	NN05181610
R886	/N	4822 051 30151	CHIP 150Ω ±5% 1/16W	NN05151610
R887	/N	4822 051 30181	CHIP 180Ω ±5% 1/16W	NN05181610
R888	/N	4822 051 30151	CHIP 150Ω ±5% 1/16W	NN05151610
R889	/N	4822 116 83829	CHIP 270Ω ±5% 1/16W	NN05271610
R890	/N	4822 116 83829	CHIP 270Ω ±5% 1/16W	NN05271610
R891	/N	4822 051 30221	CHIP 220Ω ±5% 1/16W	NN05221610
R892	/N	4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
R893	/N	4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
R894	/N	4822 051 30121	CHIP 120Ω ±5% 1/16W	NN05121610
R895	/N	4822 051 30151	CHIP 150Ω ±5% 1/16W	NN05151610
R896	/N	4822 051 30181	CHIP 180Ω ±5% 1/16W	NN05181610
R897	/N	4822 051 30151	CHIP 150Ω ±5% 1/16W	NN05151610
R898	/N			
ʃ	/N	4822 051 30221	CHIP 220Ω ±5% 1/16W	NN05221610
R903	/N			
R904	/N	4822 051 30102	CHIP 1kΩ ±5% 1/16W	NN05102610
R905	/N	4822 051 30102	CHIP 1kΩ ±5% 1/16W	NN05102610
R906	/N			
ʃ	/N	4822 051 30151	CHIP 150Ω ±5% 1/16W	NN05151610
R909	/N			
R951	/N	4822 051 30474	CHIP 470kΩ ±5% 1/16W	NN05474610
R952	/N	4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
R953	/N	4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
R954	/N	4822 117 12925	CHIP 47kΩ ±5% 1/16W	NN05473610
R955	/N	4822 117 12925	CHIP 47kΩ ±5% 1/16W	NN05473610
R956	/N	4822 051 30151	CHIP 150Ω ±5% 1/16W	NN05151610
R957	/N	4822 051 30151	CHIP 150Ω ±5% 1/16W	NN05151610
R958	/N	4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
R959	/N	4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
R960	/N	4822 051 30151	CHIP 150Ω ±5% 1/16W	NN05151610
R961	/N	4822 051 30151	CHIP 150Ω ±5% 1/16W	NN05151610
R962	/N	4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
R963	/N	4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
R964	/N	4822 051 30223	CHIP 22kΩ ±5% 1/16W	NN05223610
R965	/N	4822 051 30223	CHIP 22kΩ ±5% 1/16W	NN05223610
R968	/N	4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
R969	/N	4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
R970	/N	4822 117 12925	CHIP 47kΩ ±5% 1/16W	NN05473610
R971	/N	4822 117 12925	CHIP 47kΩ ±5% 1/16W	NN05473610
R972	/N	4822 051 30151	CHIP 150Ω ±5% 1/16W	NN05151610
R973	/N	4822 051 30151	CHIP 150Ω ±5% 1/16W	NN05151610
R974	/N	4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
R975	/N	4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
R976	/N	4822 051 30151	CHIP 150Ω ±5% 1/16W	NN05151610
R977	/N	4822 051 30151	CHIP 150Ω ±5% 1/16W	NN05151610
R978	/N	4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
R979	/N	4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
R980	/N	4822 051 30223	CHIP 22kΩ ±5% 1/16W	NN05223610
R981	/N	4822 051 30223	CHIP 22kΩ ±5% 1/16W	NN05223610
R984	/N	4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
R985	/N	4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
R986	/N	4822 117 12925	CHIP 47kΩ ±5% 1/16W	NN05473610
R987	/N	4822 117 12925	CHIP 47kΩ ±5% 1/16W	NN05473610
R988	/N	4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
R989	/N	4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
R990	/N	4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
			PE01-SEMICONDUCTORS	
D801	/N	4822 130 83715	CHIP DIODE 1SS301 DAN202U	HZ21005000
D802	/N	4822 130 80346	CHIP DIODE 02CZ8.2	HZ30004050
D803	/N	4822 130 80346	CHIP DIODE 02CZ8.2	HZ30004050
D805	/N	4822 130 80346	CHIP DIODE 02CZ8.2	HZ30004050
D807	/N	4822 130 80346	CHIP DIODE 02CZ8.2	HZ30004050
D808	/N	4822 130 80346	CHIP DIODE 02CZ8.2	HZ30004050
D809	/N	4822 130 80346	CHIP DIODE 02CZ8.2	HZ30004050

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
D810	/N	4822 130 80346	CHIP DIODE 02CZ8.2	HZ30004050
Q801	/N	9965 000 05001	IC STV6411A A/V SWITCH MATRIX	HC10008540
Q802				
ʃ	/N	4822 130 10698	CHIP TRS. 2SA1586 (Y GR)	HX100012A0
Q807			2SA1576 (Q R)	
Q808	/N	4822 130 60669	CHIP TRS. 2SC4081 (Q R) 2SC4116 (Y GR)	HX300012A0
Q809	/N	4822 130 60669	CHIP TRS. 2SC4081 (Q R) 2SC4116 (Y GR)	HX300012A0
Q810	/N	4822 130 10698	CHIP TRS. 2SA1586 (Y GR) 2SA1576A (Q R)	HX100012A0
Q811				
ʃ	/N	4822 130 60669	CHIP TRS. 2SC4081 (Q R)	HX300012A0
Q814			2SC4116 (Y GR)	
Q815	/N	4822 130 10698	CHIP TRS. 2SA1586 (Y GR) 2SA1576A (Q R)	HX100012A0
Q816				
ʃ	/N	4822 130 60669	CHIP TRS. 2SC4081 (Q R)	HX300012A0
Q823			2SC4116 (Y GR)	
Q952				
ʃ	/N	4822 130 63601	CHIP TRS. 2SC4213	HX342132A0
Q959				
Q960	/N	4822 130 60669	CHIP TRS. 2SC4081 (Q R) 2SC4116 (Y GR)	HX300012A0
Q961	/N	4822 130 60669	CHIP TRS. 2SC4081 (Q R) 2SC4116 (Y GR)	HX300012A0
Q962	/N	4822 130 61903	DIG.TRS. DTA114EU	BA10026210
			PE01-MISCELLANEOUS	
F801	/N	9965 000 04998	EMI FILTER NFM41R01C221	FM31221020
F802	/N	4822 051 30121	CHIP 120Ω ±5% 1/16W	NN05121610
F803				
ʃ	/N	9965 000 04998	EMI FILTER NFM41R01C221	FM31221020
F808				
F809	/N	4822 051 30121	CHIP 120Ω ±5% 1/16W	NN05121610
F810				
ʃ	/N	9965 000 04998	EMI FILTER NFM41R01C221	FM31221020
F814				
F952	/N	4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
F953	/N	4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
F954	/N	4822 051 30121	CHIP 120Ω ±5% 1/16W	NN05121610
F955	/N	4822 051 30121	CHIP 120Ω ±5% 1/16W	NN05121610
F956	/N	4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
F957	/N	4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
F958	/N	4822 051 30121	CHIP 120Ω ±5% 1/16W	NN05121610
F959	/N	4822 051 30121	CHIP 120Ω ±5% 1/2W	NN05121610
J801	/N	9965 000 04999	JACK FFC 23FMN-BTRK(ST)	YJ07019470
J802	/N	9965 000 05000	TERMINAL YKF41-5019 EUROCONNECTOR(21X2)	YT02420010
L801				
ʃ	/N	4822 157 60445	CHOKE COIL SUBSTITUDE	LC11533900
L804			COIL 15µH J%	
L805	/N	9965 000 00458	CHOKE COIL 8.2µH EL0405	LC18223900
L806	/N	4822 157 60445	CHOKE COIL 15µH J%	LC11533900
L807	/N	9965 000 00458	CHOKE COIL 8.2µH EL0405	LC18223900
L808	/N	4822 157 60445	CHOKE COIL 15µH J%	LC11533900
L809	/N	9965 000 00458	CHOKE COIL 8.2µH EL0405	LC18223900
L810	/N	4822 157 60445	CHOKE COIL 15µH J%	LC11533900
L811	/N	9965 000 00458	CHOKE COIL 8.2µH EL0405	LC18223900
L812	/N	4822 157 60445	CHOKE COIL 15µH J%	LC11533900
L813	/N	9965 000 00458	CHOKE COIL 8.2µH EL0405	LC18223900
L814	/N	4822 157 60445	CHOKE COIL 15µH J%	LC11533900
L815	/N	9965 000 00458	CHOKE COIL 8.2µH EL0405	LC18223900
L816	/N	4822 157 60445	CHOKE COIL 15µH J%	LC11533900
L951	/N	4822 157 60445	CHOKE COIL 15µH J%	LC11533900

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
			PF01-FRONT CIRCUIT BOARD	
			PF01-CAPACITORS	
CF01				
⟆		4822 122 31765	CER. CHIP 100pF ±5% CG 50V	DD95101300
CF11				
CF12		4822 124 23056	ELECT CAP. 47µF 10V	EJ47601010
CF13		9965 000 01912	CER. CHIP 0.047µF	DK98473300
CF14		9965 000 01912	CER. CHIP 0.047µF	DK98473300
CF15		9965 000 01912	CER. CHIP 0.047µF	DK98473300
CF16	/N	4822 122 31765	CER. CHIP 100pF ±5% CG 50V	DD95101300
CF17	/N	4822 122 31765	CER. CHIP 100pF ±5% CG 50V	DD95101300
CF19		9965 000 01912	CER. CHIP 0.047µF	DK98473300
CF21		4822 124 23056	ELECT CAP. 47µF 10V	EJ47601010
CF22		4822 126 11703	CER. CHIP 0.01µF	DK98103300
CF23		4822 126 11703	CER. CHIP 0.01µF	DK98103300
CF24		4822 122 33752	CER. CHIP 15pF ±5% CG 50V	DD95150300
CF25		4822 122 33752	CER. CHIP 15pF ±5% CG 50V	DD95150300
CF31		9965 000 01912	CER. CHIP 0.047µF	DK98473300
CF32				
⟆		4822 122 31765	CER. CHIP 100pF	DD95101300
CF36				
CF37	/N	4822 122 31765	CER. CHIP 100pF ±5% CG 50V	DD95101300
CF39		4822 122 31765	CER. CHIP 100pF	DD95101300
CF40		4822 122 31765	CER. CHIP 100pF	DD95101300
CF41		4822 126 11687	CER. CHIP 0.1µF	DK98104200
			GRM39F104Z16	
CF42				
⟆		4822 126 11687	CER. CHIP 0.1µF	DK98104200
CF45			GRM39F104Z16	
			PF01-RESISTORS	
RF01		4822 051 20129	CHIP 12Ω ±5% 10W	NI05120110
RF02		4822 051 30102	CHIP 1kΩ ±5% 1/16W	NN05102610
RF03		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RF04		4822 051 30102	CHIP 1kΩ ±5% 1/16W	NN05102610
RF05		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RF06	/N	4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
RF07	/N	4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
RF10		4822 117 12925	CHIP 47kΩ ±5% 1/16W	NN05473610
RF11		4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
RF12		4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
RF13		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RF14		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RF15		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RF16		4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
RF17		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RF18		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RF19		4822 116 83829	CHIP 270Ω ±5% 1/16W	NN05271610
RF20		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RF23		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RF28				
⟆		4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
RF31				
RF32		4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
RF33		4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
RF34		4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
RF35		4822 117 12925	CHIP 47kΩ ±5% 1/16W	NN05473610
RF36		4822 117 12925	CHIP 47kΩ ±5% 1/16W	NN05473610
RF37		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RF38		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RF39		4822 051 20129	CHIP 12Ω ±5% 1/10W	NI05120110
RF40		4822 051 30102	CHIP 1kΩ ±5% 1/16W	NN05102610
RF41		4822 117 12925	CHIP 47kΩ ±5% 1/16W	NN05473610
RF42		4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
RF43				
⟆		4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
RF46				
RF49		4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
RF50		4822 116 83829	CHIP 270Ω ±5% 1/16W	NN05271610
RF51		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RF52		4822 051 30152	CHIP 1.5kΩ ±5% 1/16W	NN05152610
RF53		4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
RF54		4822 117 12864	CHIP 82kΩ ±5% 1/16W	NN05823610
			PF01-SEMICONDUCTORS	
DF02		4822 130 83715	CHIP DIODE 1SS301 DAN202U	HZ21005000
DF04		9965 000 04970	CHIP DIODE 02CZ3.3X	HZ30014050
DF05		9965 000 04971	CHIP DIODE 02CZ3.9X	HZ30024050
DF06		9965 000 04972	L.E.D. SEL4117R TP2 RED	HI10036080
QF01		9965 000 04870	Microprocessor	*HU7000DV1
QF02		4822 130 10698	CHIP TRS. 2SA1586 (Y GR)	HX100012A0
			2SA1576A (Q R)	
QF03		4822 130 60669	CHIP TRS. 2SC4081 (Q R)	HX300012A0
			2SC4116 (Y GR)	
QF04		4822 209 15921	IC RESET IC S-806D-Z SEIKO	HC10077530
QF05		4822 130 60669	CHIP TRS. 2SC4081 (Q R)	HX300012A0
			2SC4116 (Y GR)	
QF06		4822 130 60669	CHIP TRS. 2SC4081 (Q R)	HX300012A0
			2SC4116 (Y GR)	
QF07		4822 130 10698	CHIP TRS. 2SA1586 (Y GR)	HX100012A0
			2SA1576A (Q R)	
QF08		4822 130 10698	CHIP TRS. 2SA1586 (Y GR)	HX100012A0
			2SA1576A (Q R)	
QF09		4822 130 61903	DIG.TRS. DTA114EUA	BA10026210
QF10		9965 000 04975	IC NJM79L24A -24V 100MA	HC39124090
QF11		4822 130 10698	CHIP TRS. 2SA1586(Y.GR)	HX100012A0
			2SA1576A(Q.R)	
QF12	/N	4822 130 61903	DIG.TRS. DTA114EUA	BA10026210
			PF01-MISCELLANEOUS	
JF01		9965 000 04973	JACK S7B-PH-K-S	YJ06006470
JF02	/F, /K, /S, /U		JACK S10B-PH-K-S	YJ06006500
JF02	/N	4822 265 20556	JACK S13B-PH-K-S	YJ06006530
JF03		9965 000 04974	JACK S2B-PH-K-S	YJ06006420
SF01				
⟆		4822 276 13732	PUSH SWITCH	SP01013310
SF12			SKQNAE H/5MM 160GF	
VF01		9965 000 04976	DISPLAY UNIT FL DISPLAY	HQ31110410
			11-BT-174 GNK	
XF01		9965 000 04977	SERAMIC VIB. CSTS MG 8MHz	FQ08004060
ZF01		4822 130 11494	PHOTO UNIT RPM6936-V4	HW10004210
			(IR SENSOR)	
			PK01-HEAD PHONE	
			CIRCUIT BOARD	
			PK01-CAPACITORS	
CK01		4822 122 33777	CER. CHIP 47pF ±5% CG 50V	DD95470300
CK02		4822 122 33777	CER. CHIP 47pF ±5% CG 50V	DD95470300
CK03		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CK04		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CK07		4822 122 31765	CER. CHIP 100pF ±5% CG 50V	DD95101300
CK08		4822 122 31765	CER. CHIP 100pF ±5% CG 50V	DD95101300
CK09		4822 126 12339	CER. CHIP 2200pF	DK96222300
CK10		4822 126 11687	CER. CHIP 0.1µF	DK98104200
			GRM39F104Z16	
			PBK01-RESISTORS	
RK01		9965 000 00602	VARIABLE RESIST RK09L12B0	RM01031170
			10K B(D-CUT REVERSE)	
RK03		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RK04		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RK05		4822 051 30102	CHIP 1kΩ ±5% 1/16W	NN05102610
RK06		4822 051 30102	CHIP 1kΩ ±5% 1/16W	NN05102610
RK07		4822 051 30123	CHIP 12kΩ ±5% 1/16W	NN05123610
RK08		4822 051 30123	CHIP 12kΩ ±5% 1/16W	NN05123610
RK09		4822 051 30151	CHIP 150Ω ±5% 1/16W	NN05151610

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
RK10		4822 051 30151	CHIP 150Ω ±5% 1/16W	NN05151610
RK11		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RK12		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RK13		4822 051 30759	CHIP 75Ω ±5% 1/16W	NN05750610
RK14		4822 051 30759	CHIP 75Ω ±5% 1/16W	NN05750610
RK15		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RK16		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
			PK01- SEMICONDUCTORS	
QK01		4822 209 31378	IC NJM4556	HC10045090
QK03				
∫		4822 130 63601	CHIP TRS. 2SC4213	HX342132A0
QK06				
			PK01-MISCELLANEOUS	
FK01		4822 157 10416	EMIFILTER BLM11B102S	FN31010030
FK02		4822 157 10416	EMIFILTER BLM11B102S	FN31010030
FK03		4822 157 10416	EMIFILTER BLM11B102S	FN31010030
JK01		9965 000 04978	JACK B8B-PH-K-S	YJ06006280
JK02	BLACK	9965 000 01662	H.P JACK HLJ0540-01-410 BLK	YJ01003870
JK02	GOLD	4822 267 31692	H.P JACK HLJ0540-01-430 GRY	YJ01003880
			PL01-LED CIRCUIT BOARD	
DF03		4822 130 80326	L.E.D. LT3D8B RED 3O	HI10062320
JF04		9965 000 04974	JACK S2B-PH-K-S	YJ06006420
RF21		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
			PP01-POWER SUPPLY CIRCUIT BOARD	
			PP01-CAPACITORS	
⚠ CP01		9965 000 04979	FILM CAP. 0.1µF ECQU2A104MLA AC250V	DF17104630
⚠ CP02		9965 000 04979	FILM CAP. 0.1µF ECOU2A104MLA AC250V	DF17104630
⚠ CP03	/F, /N, /U	9965 000 04980	CER. 470pF DE0910 B 471K -KX 250V	DK17471520
⚠ CP03	/K, /S		CER. 220pF DE0910 B 221K -KX 250V	DK17221520
⚠ CP04	/F, /N, /U	9965 000 04980	CER. 470pF DE0910 B 471K -KX 250V	DK17471520
⚠ CP04	/K, /S		CER. 220pF DE0910 B 221K -KX 250V	DK17221520
⚠ CP05	/F		ELECT CAP. 220µF 200V RJ	EA227200P0
⚠ CP05	/K, /S		ELECT CAP. 82µF RE2-400V	EA82640010
⚠ CP05	/N	9965 000 04981	ELECT CAP. 120µF RE3-400V121MK9 400V	EA12740070
⚠ CP05	/U		ELECT CAP. 82µF RA3-200V82µF 200V	EA82620070
⚠ CP06		4822 124 80493	ELECT CAP. 1µF 250V 105Ω	EA10525020
⚠ CP07		4822 126 13091	FILM CAP. 0.047µF 250V ECQE2473KF	DF16473640
CP08		9965 000 04982	CER. 150P DE0405-1B151K2K 2KV SHORT	DK16151910
⚠ CP11	/F		CER. 0.01µF DE1607F103M-KH 250V	DK17103860
⚠ CP11	/K, /S /U		CER. 220pF DE0910 B 221K -KX 250V	DK17221520
⚠ CP11	/N	9965 000 04983	CER. 4700pF DE1610 E 472K-KX 250V	DK17472520
CP15		9965 000 04984	ELECT. 1000µF 10V M RA-2	OA10801020
CP16		9965 000 01318	ELECT. 220µF M 10V RA-2	OA22701020
CP17		9965 000 01318	ELECT. 220µF M 10V RA-2	OA22701020
CP18		9965 000 04984	ELECT. 1000µF 10V M RA-2	OA10801020
CP19		9965 000 01318	ELECT. 220µF M 10V RA-2	OA22701020
CP20		4822 124 22722	ELECT. 1000µF M 16V RA-2	OA10801620
CP21		4822 124 22722	ELECT. 1000µF M 16V RA-2	OA10801620
CP22	/N	4822 124 12404	ELECT. 220µF M 16V RA-2	OA22701620
CP24	/N	4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
CP25		9965 000 01318	ELECT. 220µF M 10V RA-2	OA22701020
CP26		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CP27		4822 124 90351	ELECT. 0.1 µF M 50V RA-2	OA10405020
CP28		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
CP29	/N	4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
CP30		4822 124 22276	ELECT. 47µF M 50V RA-2	OA47605020
CP31		4822 124 22276	ELECT. 47µF M 50V RA-2	OA47605020
CP32		9965 000 01318	ELECT. 220µF M 10V RA-2	OA22701020
CP33		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
CP34		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
CP36		4822 124 40723	ELECT. 2200µF 16V	OA22801620
CP37		4822 124 40723	ELECT. 2200µF 16V	OA22801620
CP38		4822 124 40723	ELECT. 2200µF 16V	OA22801620
CP39		4822 124 90351	ELECT. 0.1µF M 50V RA-2	OA10405020
CP40		4822 124 90352	ELECT. 10µF M 16V RA-2	OA10601620
			PP01-RESISTORS	
⚠ RP01	/F, /U		330kΩ K 1/2W ERC12GK334C	RC10334120
⚠ RP01	/K, /N /S	9965 000 00502	1MΩ ±5% 1W RCR60 L15	RC05105010
RP02				
∫		4822 051 30334	CHIP 330kΩ ±5% 1/16W	NN05334610
RP07				
⚠ RP08		4822 116 82107	METAL 68kΩ ±5% 3W	NK05683030
⚠ RP09		4822 116 82107	METAL 68kΩ ±5% 3W	NK05683030
⚠ RP10	/F, /U		METAL 0.47Ω ±5% 2W	NL05472020
⚠ RP10	/K, /N /S	9965 000 04992	METAL 0.82Ω ±5% 2W	NL05822020
RP11		4822 051 30105	CHIP 1MΩ ±5% 1/16W	NN05105610
RP12		4822 051 30221	CHIP 220Ω ±5% 1/16W	NN05221610
RP13	/F, /U		METAL 220Ω ±5% 2W	NK05221020
RP13	/K, /N /S	9965 000 04993	METAL 470Ω ±5% 2W	NK05471020
RP14	/F, /U		METAL 1kΩ ±5% 1W	NK05102010
RP14	/K, /N /S	4822 117 12712	METAL 2.2kΩ ±5% 1W	NK05222010
RP16		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RP17	/F, /U	4822 051 30102	CHIP 1kΩ ±5% 1/6W	NN05102610
RP17	/K, /N /S	4822 051 30681	CHIP 680Ω ±5% 1/16W	NN05681610
RP18	/F, /U	4822 051 30102	CHIP 1kΩ ±5% 1/16W	NN05102610
RP18	/K, /N /S	4822 051 30681	CHIP 680Ω ±5% 1/16W	NN05681610
RP19	/F		CHIP 820Ω ±5% 1/16W	NN05821610
RP19	/K, /N, /S, /U	4822 051 30681	CHIP 680Ω ±5% 1/16W	NN05681610
RP20		4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
RP21		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RP22		4822 051 30681	CHIP 680Ω ±5% 1/16W	NN05681610
RP23		4822 051 30562	CHIP 5.6kΩ ±5% 1/16W	NN05562610
RP24		4822 051 30392	CHIP 3.9kΩ ±5% 1/16W	NN05392610
RP25		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RP26		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RP27		4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
RP28		4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
RP29		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RP31		4822 051 30223	CHIP 22kΩ ±5% 1/16W	NN05223610
RP32		4822 051 30152	CHIP 1.5kΩ ±5% 1/16W	NN05152610
RP33		4822 051 30681	CHIP 680Ω ±5% 1/16W	NN05681610
RP34		4822 051 30681	CHIP 680Ω ±5% 1/16W	NN05681610
RP35		4822 051 30123	CHIP 12kΩ ±5% 1/16W	NN05123610
RP36		4822 051 30393	CHIP 39kΩ ±5% 1/16W	NN05393610
RP38		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RP47		4822 051 30102	CHIP 1kΩ ±5% 1/16W	NN05102610
RP48		4822 051 30223	CHIP 22kΩ ±5% 1/16W	NN05223610
RP49		9965 000 03193	CHIP 3.3MΩ ±5% 1/16W	NN05335610
RP50		4822 117 12925	CHIP 47kΩ ±5% 1/16W	NN05473610
RP51		4822 051 30223	CHIP 22kΩ ±5% 1/16W	NN05223610

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
RP52		4822 051 30223	CHIP 22kΩ ±5% 1/16W	NN05223610
RP53		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RP54		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RP55		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RP56		4822 117 11462	METAL 4.7Ω ±5% 1W	NK05047010
RP57		4822 117 11462	METAL 4.7Ω ±5% 1W	NK05047010
RP58		4822 117 12925	CHIP 47kΩ ±5% 1/16W	NN05473610
RP59		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RP64		4822 051 30152	CHIP 1.5kΩ ±5% 1/16W	NN05152610
RP65		4822 117 12925	CHIP 47kΩ ±5% 1/16W	NN05473610
RP66		4822 117 12925	CHIP 47kΩ ±5% 1/16W	NN05473610
RP68		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RP80		9965 000 04994	METAL 68Ω ±5% 2W	NK05680020
RP81	/F		METAL 33Ω ±5% 2W	NK05330020
RP81	/U1		METAL 33Ω ±5% 2W	NK05330020
RP82		4822 051 30681	CHIP 680Ω ±5% 1/16W	NN05681610
RP83		4822 051 30681	CHIP 680Ω ±5% 1/16W	NN05681610
			PP01-SEMICONDUCTORS	
⚠ DP01		4822 130 81248	DIODE S1WB(A)60 30A 600V	HD20031290
⚠ DP02		4822 130 81244	DIODE ERA22-10 STRAICHT	HD20008130
DP03		4822 130 83715	CHIP DIODE 1SS301 DAN202U	HZ21005000
DP04		4822 130 11074	DIODE RK46(SBD)60V 3.5A	HD20050080
DP05		4822 130 11074	DIODE RK46(SBD)60V 3.5A	HD20050080
DP06		4822 130 11074	DIODE RK46(SBD)60V 3.5A	HD20050080
DP08		9965 000 04985	CHIP DIODE ZENER 02CZ13Y	HZ31301050
DP09		4822 130 83715	CHIP DIODE 1SS301 DAN202U	HZ21005000
DP10		4822 130 83715	CHIP DIODE 1SS301 DAN202U	HZ21005000
DP11		4822 130 82019	CHIP DIODE SFPL-52 200V/0.9A	HZ20002080
DP12		4822 130 11514	CHIP DIODE ZENER 02CZ4.7Z	HZ30017050
DP13		9965 000 04970	CHIP DIODE ZENER 02CZ3.3X 3.3V	HZ30014050
DP14		4822 130 82019	CHIP DIODE SFPL-52 200V/0.9A	HZ20002080
DP16		4822 130 82019	CHIP DIODE SFPL-52 200V/0.9A	HZ20002080
DP18 ∫		9965 000 04986	CHIP DIODE U1BC44 1A 100V	HZ20032050
DP25				
DP26		4822 130 83715	CHIP DIODE 1SS301 DAN202U	HZ21005000
DP27		4822 130 83715	CHIP DIODE 1SS301 DAN202U	HZ21005000
DP28		4822 130 81672	CHIP DIODE 02CZ5.6X	HZ30020050
⚠ QP01	/F, .U		F.E.T. 2SK3200 500V 10A	HF23200000
⚠ QP01	/K, /N, /S	9965 000 00395	F.E.T. 2SK2943 900V 3A	HF22943000
QP02		4822 130 61441	TRS. 2SD1862 TV-2 NPN Q R	HT418622A0
⚠ QP03		4822 130 10431	PHOTO UNIT PC-123F2 PHOTO CUPLER	HW10032320
QP04		4822 209 62759	IC NJM431 SHUNT REG.	HC33136090
⚠ QP05		9965 000 00399	IC SI-3033C +3.3V 1.5A WITH SW	HC36903080
⚠ QP06		9965 000 00400	IC SI-3050N +5.0V 1A	HC36905080
⚠ QP07		9965 000 04991	IC SI-3050C VOLTAGE REGULATOR	HC10006080
QP08		4822 130 60588	DIG.TRS. DTC114ES UN4211 10K 10K	BA20001000
QP09		4822 130 11604	TRS. 2SB1020	HT21020100
QP10		4822 130 60588	DIG.TRS. DTC114ES UN4211 10K 10K	BA20001000
⚠ QP11	/N	4822 209 80655	IC NJM78M08 +8V 0.5A	HC38508090
QP12		4822 130 61227	DIG.TRS. DTA114ES UN4111 10K 10K	BA10001000
QP13		4822 130 62548	TRS. 2SB1185 (E F)	HT211852B0
QP14		4822 130 42715	TRS. 2SA1048 2SA933S 2SA1267 ETC.	HT10001000
QP18 ∫ QP20		4822 130 41947	TRS. 2SC2458 2SC1740S 2SC3199 ETC.	HT30001000

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
QP21		4822 130 42715	TRS. A1048.A933S.A1267.ETC.	HT10001000
QP22		4822 130 61189	DIG.TRS. DTC114TS UN4215 10K	BA20004000
QP24		4822 130 60588	DIG.TRS. DTC114ES UN4211 10K 10K	BA20001000
QP25		4822 130 61441	TRS. 2SD1862 TV-2 NPN Q R	HT418622A0
			PP01-MISCELLANEOUS	
⚠ FP02		4822 071 55001	FUSE T500mA 250V TR5 NO.19372(TP)	FS20050200
⚠ FP03		4822 071 52501	FUSE T250mA 250V TR5 NO 19372(TP)	FS20025200
⚠ FP10		4822 071 52501	FUSE T250mA 250V TR5 NO 19372	FS20025200
⚠ JP05		4822 265 20359	PLUG CONNECTOR 2P B3P-VH	YP04000760
JP06		9965 000 04987	PLUG 6P PLUG B6B-XH-A	YP06003420
JP07		4822 267 40792	JACK B6B-PH-K-S	YJ06006260
JP08		9965 000 04988	JACK B7B-PH-K-S	YJ06006270
JP09	/F,/K /S, /U		JACK B4B-PH-K-S	YJ06006240
JP09	/N	9965 000 04989	JACK B9B-PH-K-S	YJ06006290
⚠ LP01		4822 157 70398	CHOKE COIL 22mH 0.4A LF-4D-223	LC22260130
LP02	/N	4822 157 60445	CHOKE COIL 15µH J%	LC11533900
LP03	/N	4822 157 60445	CHOKE COIL 15µH J%	LC11533900
⚠ TP01	/F, /U		POWER TRANSF. ETS29AK4H5AC SWITCHING	TS14003020
⚠ TP01	/K, /N /S	9965 000 04995	POWER TRANSF. ETS29AK4S6AC SWITCHING	TS14003030
⚠ TP02	/F, /U		POWER TRANSF. EI-35 ST-15 TYPE AC100V	TS13522030
⚠ TP02	/K, /N /S	9965 000 04996	POWER TRANSF. EI-35 ST-15 TYPE AC220/230V	TS13522040
			PS01-POWER SWITCH CIRCUIT BOARD	
FC01		4822 526 10696	FERRITE CORE TFC-23-11-14 + TFP2014-V KIT	FC50150010
⚠ FP01	/F, /U		FUSE 1.25A 125V UL CSA MINI FBT	FS10125350
⚠ FP01	/K, /N /S	4822 070 31252	FUSE 1.25A 250V BSLISTED	FS10125850
⚠ JP01	/K, /N /S, /U	4822 265 20359	PLUG CONNECTOR 2P B3P-VH	YP04000760
⚠ JP04		4822 265 20359	PLUG CONNECTOR 2P B3P-VH	YP04000760
⚠ JP10			JACK CLIP FOR 20MM FUSE ON PCB	YJ08000580
⚠ JP11			JACK CLIP FOR 20MM FUSE ON PCB	YJ08000590
⚠ JP12	/F	9965 000 04990	TERMINAL FOR AC CORD ON PCB	YL01010250
⚠ JP13	/F	9965 000 04990	TERMINAL FOR AC CORD ON PCB	YL01010250
⚠ SP01		4822 276 13364	PUSH SWITCH SDDLD1 POWER TV-3	SP01011990
			PV01-I/O CIRCUIT BOARD	
			PV01-CAPACITORS	
CH01		9965 000 04966	FILM CAP 1200pF J	OF15122540
CH02		9965 000 04966	FILM CAP 1200pF J	OF15122540
CH03		9965 000 01344	FILM CAP 100pF J	OF15101540
CH04		9965 000 01344	FILM CAP 100pF J	OF15101540
CH05		4822 126 11671	CER. CHIP 33pF ±5% CG 50V	DD95330300
CH06		4822 126 11671	CER. CHIP 33pF ±5% CG 50V	DD95330300
CS01		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CS02		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
CS03		4822 124 12404	ELECT. 220µF M 16V RA-2	OA22701620
CS04		4822 124 12404	ELECT. 220µF M 16V RA-2	OA22701620
CS05	/F, /K /S, /U		ELECT. 47µF M 16V ARS	OA47601640
CS05	/N	4822 124 80119	ELECT. 100µF 25V ARS	OA10702540
CS06	/F, /K /S, /U		ELECT. 47µF M 16V ARS	OA47601640
CS07	/F, /K /S, /U	4822 124 12404	ELECT. 220µF M 16V RA-2	OA22701620
CS07	/N	4822 124 22039	ELECT. 220µF 16V ARA	OA22701650
CS08	/F, /K /S, /U	4822 124 12404	ELECT. 220µF M 16V RA-2	OA22701620
CS08	/N	4822 124 22039	ELECT. 20µF 16V ARA	OA22701650
CS09	/F, /K /S, /U	4822 124 12404	ELECT. 220µF M 16V RA-2	OA22701620
CS09	/N	4822 124 22039	ELECT. 220µF 16V ARA	OA22701650
CS10	/F, /K /S, /U	4822 124 12404	ELECT. 220µF M 16V RA-2	OA22701620
CS10	/N	4822 124 22039	ELECT. 220µF 16V ARA	OA22701650
CS11		4822 124 80067	ELECT. 4.7µF M 50V RA-2	OA47505020
CS12		4822 124 80067	ELECT. 4.7µF M 50V RA-2	OA47505020
CS13	/F, /K /S, /U		ELECT. 220µF 16V ARS	OA22701640
CS13	/N	4822 124 22039	ELECT. 220µF 16V ARA	OA22701650
CS14	/F, /K /S, /U		ELECT. 220µF 16V ARS	OA22701640
CS14	/N	4822 124 22039	ELECT. 220µF 16V ARA	OA22701650
CS15	/F, /K /S, /U		ELECT. 220µF 16V ARS	OA22701640
CS15	/N	4822 124 22039	ELECT. 220µF 16V ARA	OA22701650
CS16	/F, /K /S, /U		ELECT. 220µF 16V ARS	OA22701640
CS16	/N	4822 124 22039	ELECT. 220µF 16V ARA	OA22701650
CS17		4822 122 31765	CER. CHIP 100pF ±5% CG 50V	DD95101300
CS18		4822 122 31765	CER. CHIP 100pF ±5% CG 50V	DD95101300
CS21		4822 126 11687	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CS22		4822 122 33777	CER. CHIP 47pF ±5% CG 50V	DD95470300
CS23		4822 126 11685	CER. CHIP 4700pF ±10% B 50V	DK96472300
CS24		4822 126 11704	CER. CHIP 0.022µF	DK98223300
CS25		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CS26		4822 126 13883	CER. CHIP 220pF ±5% CG 50V	DD95221300
CS27		4822 126 11687	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CS29		9965 000 05002	FILM CAP 3900pF J	OF15392540
CS30		9965 000 05002	FILM CAP 3900pF J	OF15392540
CS52		4822 126 11703	CER. CHIP 0.01µF	DK98103300
CS54		4822 126 11703	CER. CHIP 0.01µF	DK98103300
CV01		4822 126 11663	CER. CHIP 12pF ±5% CG 50V	DD95120300
CV02		9965 000 04997	CER. CHIP 5pF ±0.25pF CH	DD90050300
CV03		4822 122 33782	CER. CHIP 56pF	DD95560300
CV04		9965 000 04997	CER. CHIP 5pF	DD90050300
CV05		4822 122 33777	CER. CHIP 47pF ±5% CG 50V	DD95470300
CV06		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CV07		4822 126 11703	CER. CHIP 0.01µF	DK98103300
CV08		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CV09		4822 126 11703	CER. CHIP 0.01µF	DK98103300
CV10		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CV11		9965 000 05004	ELECT CAP. 220µF 10V	EQ22701030
CV12		4822 126 11703	CER. CHIP 0.01µF	DK98103300
CV13		4822 124 90371	ELECT. 470µF M 10V RA-2	OA47701020
CV14		4822 126 11703	CER. CHIP 0.01µF	DK98103300
CV15		4822 126 13689	CER. CHIP 18pF	DD95180300
CV16		4822 126 11663	CER. CHIP 12pF ±5% CG 50V	DD95120300
CV17		9965 000 04997	CER. CHIP 5pF ±0.25pF CH	DD90050300
CV18		4822 122 33782	CER. CHIP 56pF	DD95560300
CV19		9965 000 04997	CER. CHIP 5pF	DD90050300

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
CV20		4822 122 33777	CER. CHIP 47pF ±5% CG 50V	DD95470300
CV21		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CV22		4822 126 11703	CER. CHIP 0.01µF	DK98103300
CV23		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CV24		4822 126 11703	CER. CHIP 0.01µF	DK98103300
CV25		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CV26		9965 000 05004	ELECT CAP. 220µF 10V	EQ22701030
CV27		4822 126 11703	CER. CHIP 0.01µF	DK98103300
CV28		4822 124 90371	ELECT. 470µF M 10V RA-2	OA47701020
CV29		4822 126 11703	CER. CHIP 0.01µF	DK98103300
CV30		4822 126 13689	CER. CHIP 18pF	DD95180300
CV31		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CV32		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CV33		4822 126 11703	CER. CHIP 0.01µF	DK98103300
CV34		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CV35		4822 126 11703	CER. CHIP 0.01µF	DK98103300
CV36		4822 126 11663	CER. CHIP 12pF ±5% CG 50V	DD95120300
CV37		9965 000 04997	CER. CHIP 5pF ±0.25pF CH	DD90050300
CV38		4822 122 33782	CER. CHIP 56pF	DD95560300
CV39		9965 000 04997	CER. CHIP 5pF	DD90050300
CV40		4822 122 33777	CER. CHIP 47pF ±5% CG 50V	DD95470300
CV41		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CV42		4822 126 11703	CER. CHIP 0.01µF	DK98103300
CV43		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CV44		4822 126 11703	CER. CHIP 0.01µF	DK98103300
CV45		4822 126 11703	CER. CHIP 0.01µF	DK98103300
CV46	/F, /K /S, /U	4822 126 11663	CER. CHIP 12pF ±5% CG 50V	DD95120300
CV47	/F, /K /S, /U	9965 000 04997	CER. CHIP 5pF ±0.25pF CH 50V	DD90050300
CV48	/F, /K /S, /U	4822 122 33782	CER. CHIP 56pF	DD95560300
CV49	/F, /K /S, /U	9965 000 04997	CER. CHIP 5pF	DD90050300
CV50	/F, /K /S, /U	4822 122 33777	CER. CHIP 47pF ±5% CG 50V	DD95470300
CV51	/F, /K /S, /U	4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CV52	/F, /K /S, /U	4822 126 11703	CER. CHIP 0.01µF	DK98103300
CV53	/F, /K /S, /U	4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CV54	/F, /K /S, /U	4822 126 11703	CER. CHIP 0.01µF	DK98103300
CV55	/F, /K /S, /U	5322 124 21731	ELECT. 10µF M 50V RA-2	OA10605020
CV56	/F, /K /S, /U	4822 124 90371	ELECT. 470µF M 10V RA-2	OA47701020
CV57	/F, /K /S, /U	4822 126 11703	CER. CHIP 0.01µF	DK98103300
CV58	/F, /K /S, /U	4822 126 13689	CER. CHIP 18pF	DD95180300
CV59	/F, /K /S, /U	4822 126 11663	CER. CHIP 12pF ±5% CG 50V	DD95120300
CV61	/F, /K /S, /U	4822 122 33782	CER. CHIP 56pF	DD95560300
CV62	/F, /K /S, /U	9965 000 04997	CER. CHIP 5pF	DD90050300
CV63	/F, /K /S, /U	4822 122 33777	CER. CHIP 47pF ±5% CG 50V	DD95470300
CV64	/F, /K /S, /U	4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CV65	/F, /K /S, /U	4822 126 11703	CER. CHIP 0.01µF	DK98103300
CV66	/F, /K /S, /U	4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CV67	/F, /K /S, /U	4822 126 11703	CER. CHIP 0.01µF	DK98103300

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
CV68	/F, /K /S, /U	5322 124 21731	ELECT. 10µF M 50V RA-2	OA10605020
CV69	/F, /K /S, /U	4822 124 90371	ELECT. 470µF M 10V RA-2	OA47701020
CV70	/F, /K /S, /U	4822 126 11703	CER. CHIP 0.01µF	DK98103300
CV71	/F, /K /S, /U	4822 126 13689	CER. CHIP 18pF	DD95180300
CV72	/F, /K /S, /U	4822 124 80067	ELECT. 4.7µF M 50V RA-2	OA47505020
CV73	/F, /K /S, /U	4822 126 11703	CER. CHIP 0.01µF	DK98103300
CV74	/F, /K /S, /U	5322 124 21731	ELECT. 10µF M 50V RA-2	OA10605020
CV76		4822 124 90354	ELECT. 100µF M 16V RA-2	OA10701620
CV77		4822 124 90371	ELECT. 470µF M 10V RA-2	OA47701020
CV78		4822 124 90371	ELECT. 470µF M 10V RA-2	OA47701020
CV79		4822 126 11703	CER. CHIP 0.01µF	DK98103300
			PV01-RESISTORS	
RH01		9965 000 04967	8.2kΩ ±1% 1/10W	NJ01822110
RH02		9965 000 04967	8.2kΩ ±1% 1/10W	NJ01822110
RH03		9965 000 04968	33kΩ ±1% 1/10W	NJ01333110
RH04		9965 000 04968	33kΩ ±1% 1/10W	NJ01333110
RH05		9965 000 04969	4.7kΩ ±1% 1/10W	NJ01472110
RH06		9965 000 04969	4.7kΩ ±1% 1/10W	NJ01472110
RH07		4822 116 90503	CHIP 150Ω ±5% 1/10W	NI05151110
RH08		4822 116 90503	CHIP 150Ω ±5% 1/10W	NI05151110
RH09		4822 051 20101	CHIP 100Ω ±5% 1/10W	NI05101110
RH10		4822 051 20101	CHIP 100Ω ±5% 1/10W	NI05101110
RH11		4822 116 90503	CHIP 150Ω ±5% 1/10W	NI05151110
RH12		4822 116 90503	CHIP 150Ω ±5% 1/10W	NI05151110
RH13		4822 117 10833	CHIP 10kΩ ±5% 1/10W	NI05103110
RH14		4822 117 10833	CHIP 10kΩ ±5% 1/10W	NI05103110
RH15		4822 117 11953	CHIP 560Ω ±5% 1/10W	NI05561110
RH16		4822 117 11953	CHIP 560Ω ±5% 1/10W	NI05561110
RH17		4822 051 20101	CHIP 100Ω ±5% 1/10W	NI05101110
RH18		4822 051 20101	CHIP 100Ω ±5% 1/10W	NI05101110
RH19		4822 051 20333	CHIP 33kΩ ±5% 1/10W	NI05333110
RH20		4822 051 20333	CHIP 33kΩ ±5% 1/10W	NI05333110
RH21		4822 051 20101	CHIP 100Ω ±5% 1/10W	NI05101110
RH22		4822 051 20101	CHIP 100Ω ±5% 1/10W	NI05101110
RH23		4822 117 11953	CHIP 560Ω ±5% 1/10W	NI05561110
RH24		4822 117 11953	CHIP 560Ω ±5% 1/10W	NI05561110
RH25		4822 051 20101	CHIP 100Ω ±5% 1/10W	NI05101110
RH26		4822 051 20101	CHIP 100Ω ±5% 1/10W	NI05101110
RH27		9965 000 04968	33kΩ ±1% 1/10W	NJ01333110
RH28		9965 000 04968	33kΩ ±1% 1/10W	NJ01333110
RS01		4822 051 30223	CHIP 22kΩ ±5% 1/16W	NN05223610
RS02		4822 051 30223	CHIP 22kΩ ±5% 1/16W	NN05223610
RS03		4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
RS04		4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
RS05		4822 051 30102	CHIP 1kΩ ±5% 1/16W	NN05102610
RS06		4822 051 30102	CHIP 1kΩ ±5% 1/16W	NN05102610
RS09		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RS10		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RS11		9965 000 05003	33Ω ±5% 1/6W	GG05330160
RS12		9965 000 05003	33Ω ±5% 1/6W	GG05330160
RS13		9965 000 05003	33Ω ±5% 1/6W	GG05330160
RS14		9965 000 05003	33Ω ±5% 1/6W	GG05330160
⚠ RS15				
ʃ		4822 116 60309	FUSIBLE 2.2Ω ±5% 1/4W	NH05022140
⚠ RS18				
RS19		4822 051 20223	CHIP 22kΩ ±5% 1/10W	NI05223110
RS20		4822 051 20223	CHIP 22kΩ ±5% 1/10W	NI05223110
RS21		4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
RS22		4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
RS25				

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
ʃ RS28		4822 116 90503	CHIP 150Ω ±5% 1/10W	NI05151110
RS29				
ʃ RS32		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RS33		4822 117 12891	CHIP 220kΩ ±5% 1/16W	NN05224610
RS34		4822 117 12891	CHIP 220kΩ ±5% 1/16W	NN05224610
RS35		4822 051 30223	CHIP 22kΩ ±5% 1/16W	NN05223610
RS36		4822 051 30223	CHIP 22kΩ ±5% 1/16W	NN05223610
RS37		4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
RS38		4822 051 30759	CHIP 75Ω ±5% 1/16W	NN05750610
RS39		4822 051 30221	CHIP 220Ω ±5% 1/16W	NN05221610
RS41		4822 117 12139	CHIP 22Ω ±5% 1/16W	NN05220610
RS42		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RS43		4822 051 30223	CHIP 22kΩ ±5% 1/16W	NN05223610
RS44		4822 051 30223	CHIP 22kΩ ±5% 1/16W	NN05223610
RS47		4822 117 11454	CHIP 820Ω ±5% 1/10W	NI05821110
RS48		4822 117 11454	CHIP 820Ω ±5% 1/10W	NI05821110
RS49	/N	4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RS50	/N	4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RS51		4822 117 12925	CHIP 47kΩ ±5% 1/16W	NN05473610
RS52	/N	4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RV01		4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
RV02		4822 051 30223	CHIP 22kΩ ±5% 1/16W	NN05223610
RV03		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RV04		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RV05		4822 051 30152	CHIP 1.5kΩ ±5% 1/16W	NN05152610
RV06		4822 051 30152	CHIP 1.5kΩ ±5% 1/16W	NN05152610
RV07		4822 117 12891	CHIP 220kΩ ±5% 1/16W	NN05224610
RV08		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RV09		4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
RV10		4822 051 30102	CHIP 1kΩ ±5% 1/16W	NN05102610
RV11		4822 051 30681	CHIP 680Ω ±5% 1/16W	NN05681610
RV12		4822 051 30102	CHIP 1kΩ ±5% 1/16W	NN05102610
RV13		9965 000 05009	CHIP 39Ω ±5% 1/16W	NN05390610
RV14		4822 051 30339	CHIP 33Ω ±5% 1/16W	NN05330610
RV15		9965 000 05009	CHIP 39Ω ±5% 1/16W	NN05390610
RV16		4822 051 30339	CHIP 33Ω ±5% 1/16W	NN05330610
RV17		4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
RV18		4822 051 30223	CHIP 22kΩ ±5% 1/16W	NN05223610
RV19		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RV20		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RV21		4822 051 30152	CHIP 1.5kΩ ±5% 1/16W	NN05152610
RV22		4822 051 30152	CHIP 1.5kΩ ±5% 1/16W	NN05152610
RV23		4822 117 12891	CHIP 220kΩ ±5% 1/16W	NN05224610
RV24		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RV25		4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
RV26		4822 051 30102	CHIP 1kΩ ±5% 1/16W	NN05102610
RV27		4822 051 30681	CHIP 680Ω ±5% 1/16W	NN05681610
RV28		4822 051 30102	CHIP 1kΩ ±5% 1/16W	NN05102610
RV29		9965 000 05009	CHIP 39Ω ±5% 1/16W	NN05390610
RV30		4822 051 30339	CHIP 33Ω ±5% 1/16W	NN05330610
RV31	/F, /K /S, /U	9965 000 05009	CHIP 39Ω ±5% 1/16W	NN05390610
RV32	/F, /K /S, /U	4822 051 30339	CHIP 33Ω ±5% 1/16W	NN05330610
RV33		4822 051 30151	CHIP 150Ω ±5% 1/16W	NN05151610
RV34		4822 117 11817	CHIP 1.2kΩ ±5% 1/16W	NN05122610
RV35		4822 051 30152	CHIP 1.5kΩ ±5% 1/16W	NN05152610
RV36		4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
RV37		4822 051 30223	CHIP 22kΩ ±5% 1/16W	NN05223610
RV38		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RV39		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RV40		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RV41		9965 000 05009	CHIP 39Ω ±5% 1/16W	NN05390610
RV42		4822 051 30339	CHIP 33Ω ±5% 1/16W	NN05330610

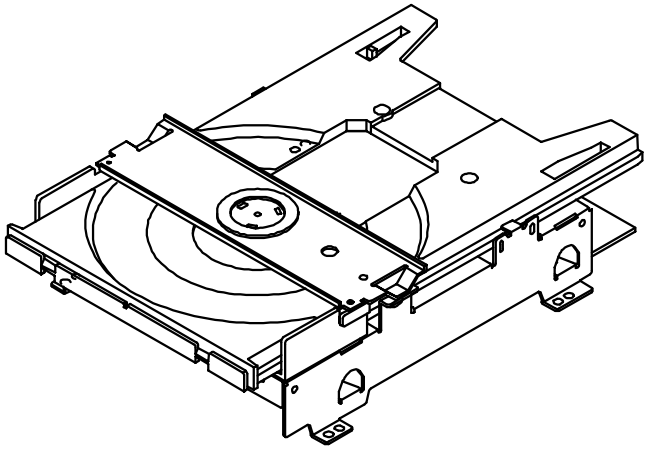
POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
RV43	/F, /K /S, /U	4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
RV44	/F, /K /S, /U	4822 051 30223	CHIP 22kΩ ±5% 1/16W	NN05223610
RV45	/F, /K /S, /U	4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RV46	/F, /K /S, /U	4822 051 30681	CHIP 680Ω ±5% 1/16W	NN05681610
RV47	/F, /K /S, /U	4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
RV48	/F, /K /S, /U	4822 051 30102	CHIP 1kΩ ±5% 1/16W	NN05102610
RV49	/F, /K /S, /U	4822 051 30681	CHIP 680Ω ±5% 1/16W	NN05681610
RV50	/F, /K /S, /U	4822 051 30102	CHIP 1kΩ ±5% 1/16W	NN05102610
RV51	/F, /K /S, /U	9965 000 05009	CHIP 39Ω ±5% 1/16W	NN05390610
RV52	/F, /K /S, /U	4822 051 30339	CHIP 33Ω ±5% 1/16W	NN05330610
RV53	/F, /K /S, /U	4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
RV54	/F, /K /S, /U	4822 051 30223	CHIP 22kΩ ±5% 1/16W	NN05223610
RV55	/F, /K /S, /U	4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RV56	/F, /K /S, /U	4822 051 30681	CHIP 680Ω ±5% 1/16W	NN05681610
RV57	/F, /K /S, /U	4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
RV58	/F, /K /S, /U	4822 051 30102	CHIP 1kΩ ±5% 1/16W	NN05102610
RV59	/F, /K /S, /U	4822 051 30681	CHIP 680Ω ±5% 1/16W	NN05681610
RV60	/F, /K /S, /U	4822 051 30102	CHIP 1kΩ ±5% 1/16W	NN05102610
RV61	/F, /K /S, /U	9965 000 05009	CHIP 39Ω ±5% 1/16W	NN05390610
RV62	/F, /K /S, /U	4822 051 30339	CHIP 33Ω ±5% 1/16W	NN05330610
RV63	/F, /K /S, /U		CHIP 330Ω ±5% 1/16W	NN05331610
RV64	/F, /K /S, /U	4822 117 12891	CHIP 220kΩ ±5% 1/16W	NN05224610
RV65	/F, /K /S, /U	4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RV66		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RV68		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
			PV01-SEMICONDUCTORS	
DH01		4822 130 83715	CHIP DIODE 1SS301 DAN202U	HZ21005000
DH02		4822 130 83715	CHIP DIODE 1SS301 DAN202U	HZ21005000
DH03 ∫ DH06		4822 130 81324	CHIP DIODE 1SS302	HZ20018050
DS01		9965 000 04971	CHIP DIODE 02CZ3.9X	HZ30024050
DS02		9965 000 01734	CHIP DIODE ZENER 02CZ10Y 10V	HZ30025050
DS03		9965 000 01734	CHIP DIODE ZENER 02CZ10Y 10V	HZ30025050
DS04 ∫ DS07		4822 130 83715	CHIP DIODE 1SS301 DAN202U	HZ21005000
DS08	/N	4822 130 83715	CHIP DIODE 1SS301 DAN202U	HZ21005000
DS51		4822 130 83715	CHIP DIODE 1SS301 DAN202U	HZ21005000
QH01		4822 130 42839	F.E.T. 2SK369 BL VDGS-40V PDO.4W	HF203691B0
QH02		4822 130 42839	F.E.T. 2SK369 BL VDGS-40V PDO.4W	HF203691B0
QH03		4822 130 61425	CHIP TRS. 2SC2873 (Y)	HX328731B0
QH04		4822 130 61425	CHIP TRS. 2SC2873 (Y)	HX328731B0
QH05		4822 130 42839	F.E.T. 2SK369 BL VDGS-40V PDO.4W	HF203691B0
QH06		4822 130 42839	F.E.T. 2SK369 BL VDGS-40V PDO.4W	HF203691B0
QH07 ∫ QH10		4822 130 63928	CHIP TRS. 2SA1312 (B)	HX113121B0
QH11		4822 130 63929	CHIP TRS. 2SC3324 (B)	HX333241B0
QH12		4822 130 63929	CHIP TRS. 2SC3324 (B)	HX333241B0
QS01		4822 130 61906	DIG.TRS. DTC114EU	BA20035210
QS02		4822 130 61903	DIG.TRS. DTA114EU	BA10026210
QS03		4822 130 60669	CHIP TRS. 2SC4081 (Q R) 2SC4116 (Y GR)	HX300012A0
QS04		4822 130 42836	F.E.T. 2SK246 (GR)	HF202461C0
QS05		4822 130 42836	F.E.T. 2SK246 (GR)	HF202461C0
QS06		4822 130 11604	TRS. 2SB1020	HT21020100
QS07		4822 130 11605	TRS. 2SD1415	HT41415100
QS08		4822 130 61903	DIG.TRS. DTA114EU	BA10026210
QS09		4822 130 61903	DIG.TRS. DTA114EU	BA10026210
QS11		5322 130 41844	F.E.T. 2SK170 V LANK	HF201701H0
QS12		5322 130 41844	F.E.T. 2SK170 V LANK	HF201701H0
QS13		4822 130 62649	F.E.T. 2SJ74 V LANK	HF100741H0
QS14		4822 130 62649	F.E.T. 2SJ74 V LANK	HF100741H0
QS15		4822 130 63601	CHIP TRS. 2SC4213	HX342132A0
QS16		4822 130 63601	CHIP TRS. 2SC4213	HX342132A0
QS17		4822 130 63601	CHIP TRS. 2SC4213	HX342132A0
QS18		4822 130 63601	CHIP TRS. 2SC4213	HX342132A0
QS50		4822 209 63557	IC TC7S08F	HC700805S0
QS51		4822 130 61906	DIG.TRS. DTC114EU	BA20035210
QS52		4822 209 31568	IC CMOS 74HCU04 FLAT	HC700400Z0
QV01		4822 130 60669	CHIP TRS. 2SC4081 (Q R) 2SC4116 (Y GR)	HX300012A0
QV02		4822 130 60669	CHIP TRS. 2SC4081 (Q R) 2SC4116 (Y GR)	HX300012A0
QV03		4822 130 10698	CHIP TRS. 2SA1586 (Y GR) 2SA1576A (Q R)	HX100012A0
QV04		4822 209 14876	IC MC14577C (SOP)	HC10065170
QV05		4822 130 60669	CHIP TRS. 2SC4081 (Q R) 2SC4116 (Y GR)	HX300012A0
QV06		4822 130 60669	CHIP TRS. 2SC4081 (Q R) 2SC4116 (Y GR)	HX300012A0
QV07		4822 130 10698	CHIP TRS. 2SA1586 (Y GR) 2SA1576A (Q R)	HX100012A0
QV08		4822 130 60669	CHIP TRS. 2SC4081 (Q R) 2SC4116 (Y GR)	HX300012A0
QV09		4822 130 10698	CHIP TRS. 2SA1586 (Y GR) 2SA1576A (Q R)	HX100012A0
QV10		4822 130 60669	CHIP TRS. 2SC4081 (Q R) 2SC4116 (Y GR)	HX300012A0
QV11		4822 130 61903	DIG.TRS. DTA114EU	BA10026210
QV12	/F, /K /S, /U	4822 130 60669	CHIP TRS. 2SC4081 (Q R) 2SC4116 (Y GR)	HX300012A0
QV13	/F, /K /S, /U	4822 130 60669	CHIP TRS. 2SC4081 (Q R) 2SC4116 (Y GR)	HX300012A0
QV14	/F, /K /S, /U	4822 209 14876	IC MC14577C (SOP)	HC10065170
QV15	/F, /K /S, /U	4822 130 60669	CHIP TRS. 2SC4081 (Q R) 2SC4116 (Y GR)	HX300012A0
QV16	/F, /K /S, /U	4822 130 60669	CHIP TRS. 2SC4081 (Q R) 2SC4116 (Y GR)	HX300012A0
QV17	/F, /K /S, /U		IC LA7213	HC10270030
QV18	/F, /K /S, /U	4822 130 61903	DIG.TRS. DTA114EU	BA10026210

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
			PV01-MISCELLANEOUS	
FS01 ∫ FS06		4822 157 10416	EMIFILTER BLM11B102S	FN31010030
FV01 ∫ FV05		9965 000 05005 9965 000 05 005	FERRITE BEADS BK1608HM102-T	FC90020120
FV06 ∫ FV09		9965 000 04998	EMI FILTER NFM41R01C221	FM31221020
FV10 ∫ FV12	/F, /K /S, /U	9965 000 04998	EMI FILTER NFM41R01C221	FM31221020
JS01		4822 290 81723	TERMINAL RCA 4P WHITE/RED AU YKC21-3108	YT02041070
JS02		4822 290 81638	TERMINAL 14X14 RA 1L1P BLK AU FLM-GND	YT02010790
JS03		4822 267 31369	OPT. CONNECTOR GP1F32T OPTICAL OUTPUT	YJ15000090
JS04		4822 267 41009	TERMINAL 2P RCA PIN JACK	YT02020890
JS05		9965 000 04978	JACK B8B-PH-K-S	YJ06006280
JS06		4822 267 40792	JACK B6B-PH-K-S	YJ06006260
JV01	/F, /K /S, /U		JACK B4B-PH-K-S	YJ06006240
JV01	/N	9965 000 04989	JACK B9B-PH-K-S	YJ06006290
JV02	/F, /K /S, /U		JACK B10B-PH-K-S	YJ06006300
JV02	/N	9965 000 05006	JACK B13B-PH-K-S	YJ06006330
JV03		9965 000 05007	JACK 24FLT-SM1-TB JST	YJ07021200
JV04		4822 265 10678	TERMINAL YKF51-5506	YT02011010
JV05	/F, /K /S, /U		TERMINAL 3P RCA PIN JACK YKC21-4010	YT02030580
JV07	/N	9965 000 04999	JACK FFC 23FMN-BTRA(ST)	YJ07019470
JV08		9965 000 05008	TERMINAL 2P RCA JACK YKC21-3926	YT02021590
LS01		4822 142 60422	PULSE TRANSF. (TPS247MN-0386AN)	TP41042030
LV01		9965 000 00458	CHOKE COIL 8.2µH EL0405	LC18223900
LV02		4822 157 60445	CHOKE COIL 15µH J%	LC11533900
LV03		9965 000 00458	CHOKE COIL 8.2µH EL0405	LC18223900
LV04		4822 157 60445	CHOKE COIL 15µH J%	LC11533900
LV05		9965 000 00458	CHOKE COIL 8.2µH EL0405	LC18223900
LV06		4822 157 60445	CHOKE COIL 15µH J%	LC11533900
LV07	/F, /K /S, /U	9965 000 00458	CHOKE COIL 8.2µH EL0405	LC18223900
LV08	/F, /K /S, /U	4822 157 60445	CHOKE COIL 15µH J%	LC11533900
LV09	/F, /K /S, /U	9965 000 00458	CHOKE COIL 8.2µH EL0405	LC18223900
LV10	/F, /K /S, /U	4822 157 60445	CHOKE COIL 15µH J%	LC11533900
LV11		4822 157 60445	CHOKE COIL 15µH J%	LC11533900
LV12		4822 157 60445	CHOKE COIL 15µH J%	LC11533900
LV13		4822 157 60445	CHOKE COIL 15µH J%	LC11533900
SS01		4822 277 11745	SLIDE SWITCH SSSF12-S06N0 HORIZONTAL N-SHOT	SS01021010

Service Manual

TKM1000MZ

DVD Module for MARANTZ



<<IMPORTANT NOTICE>>

This service manual explains the product DV7000 which mounted the **DVD module TKM1000MZ with the main board <C3M1>** only. Products which mounted <C3M1> has product serial number **MZ01XXXXXXXXX.** All other products have mounted <M3C1> main board. (Product serial number **MZ00XXXXXXXXX.**) Spare parts for <M3C1> main board are not available. In case of defects are found with the <M3C1> main board, complete DVD module must be replaced by the TKM1000MZ with the main board <C3M1>.

TABLE OF CONTENTS

SECTION	PAGE
2. TKM1000MZ (DVD MODULE for MARANTZ)	
2.1 SCHEMATIC DIAGRAM AND PARTS LOCATION	2-1
2.2 MICROPROCESSOR AND IC DATA	2-15
2.3 EXPLODED VIEW AND PARTS LIST	2-28
2.4 ELECTRICAL PARTS LIST	2-30

Please use this service manual with referring to the user guide (D.F.U.) without fail.
修理の際は、必ず取扱説明書を準備し操作方法を確認の上作業を行ってください。

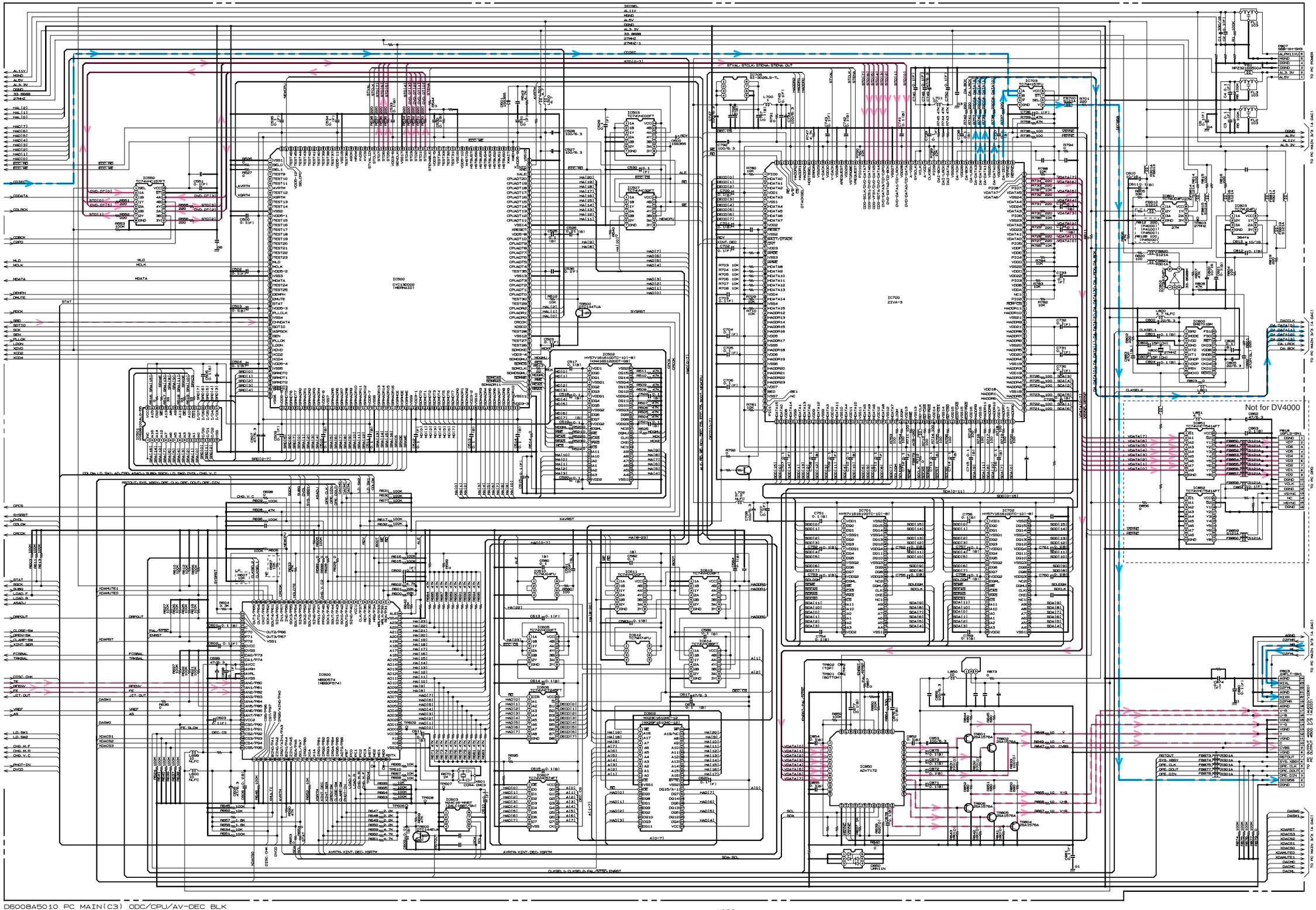
marantz®

TKM1000MZ

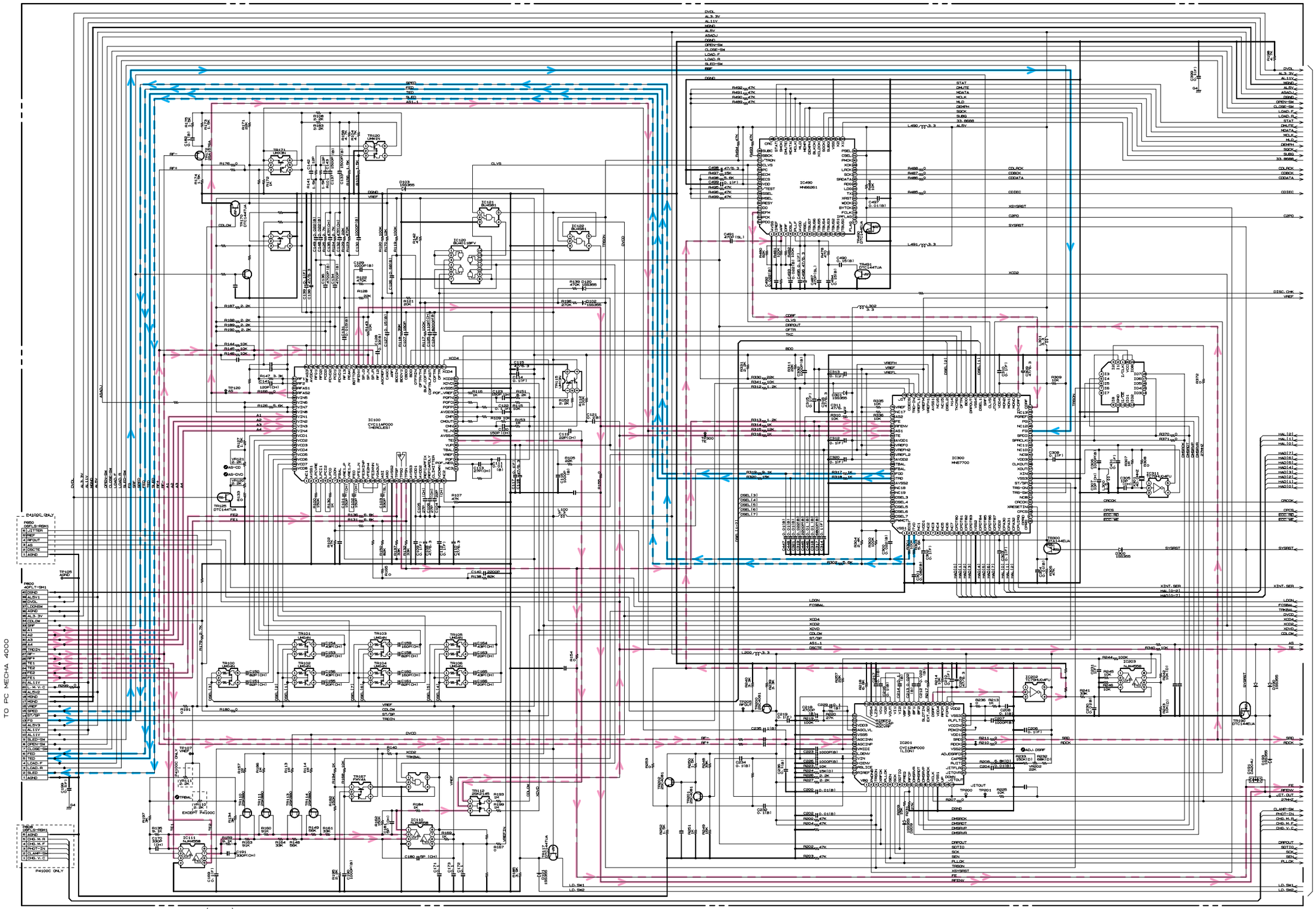
Printed in Japan

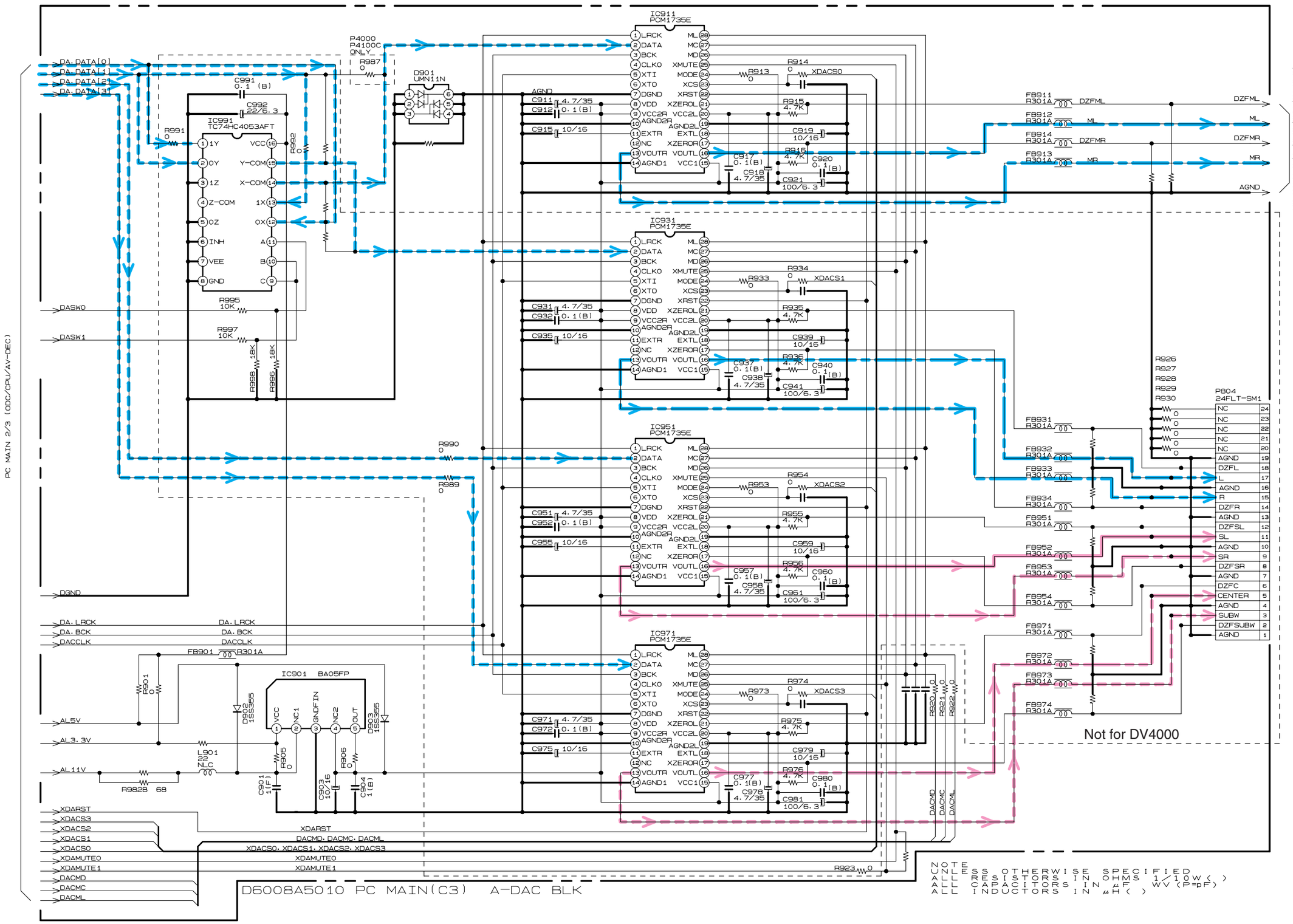
First Issue 2000.06

2.1 SCHEMATIC DIAGRAM AND PARTS LOCATION

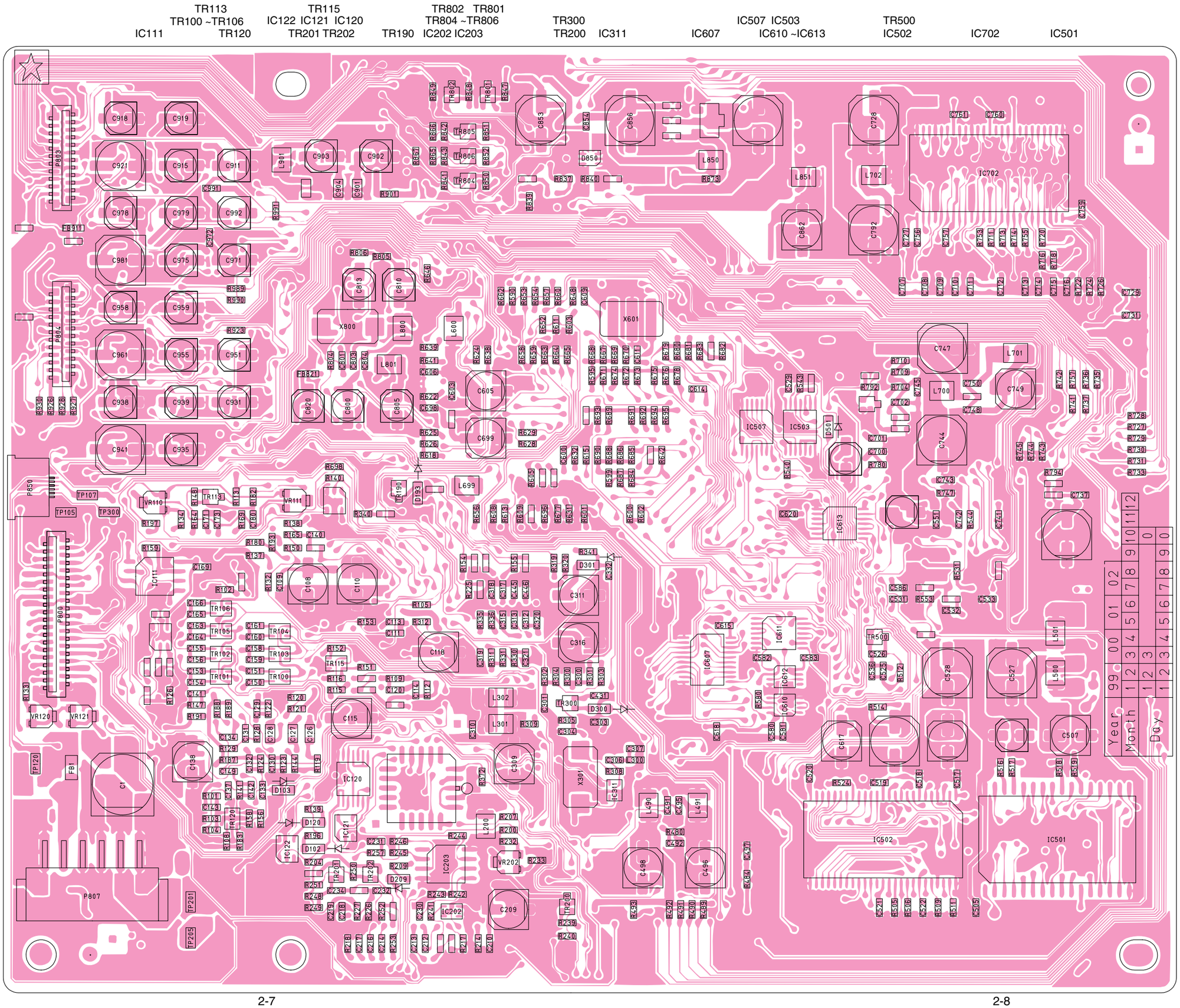


D600BA5010 PC MAIN(C3) ODC/CPU/AV-DEC BLK


TO PC MECHA 4000
TO PC MAIN 2/3 (ODC/CPU/AV-DEC)
D6008A5010 PC MAIN(C3) SERVO BLK

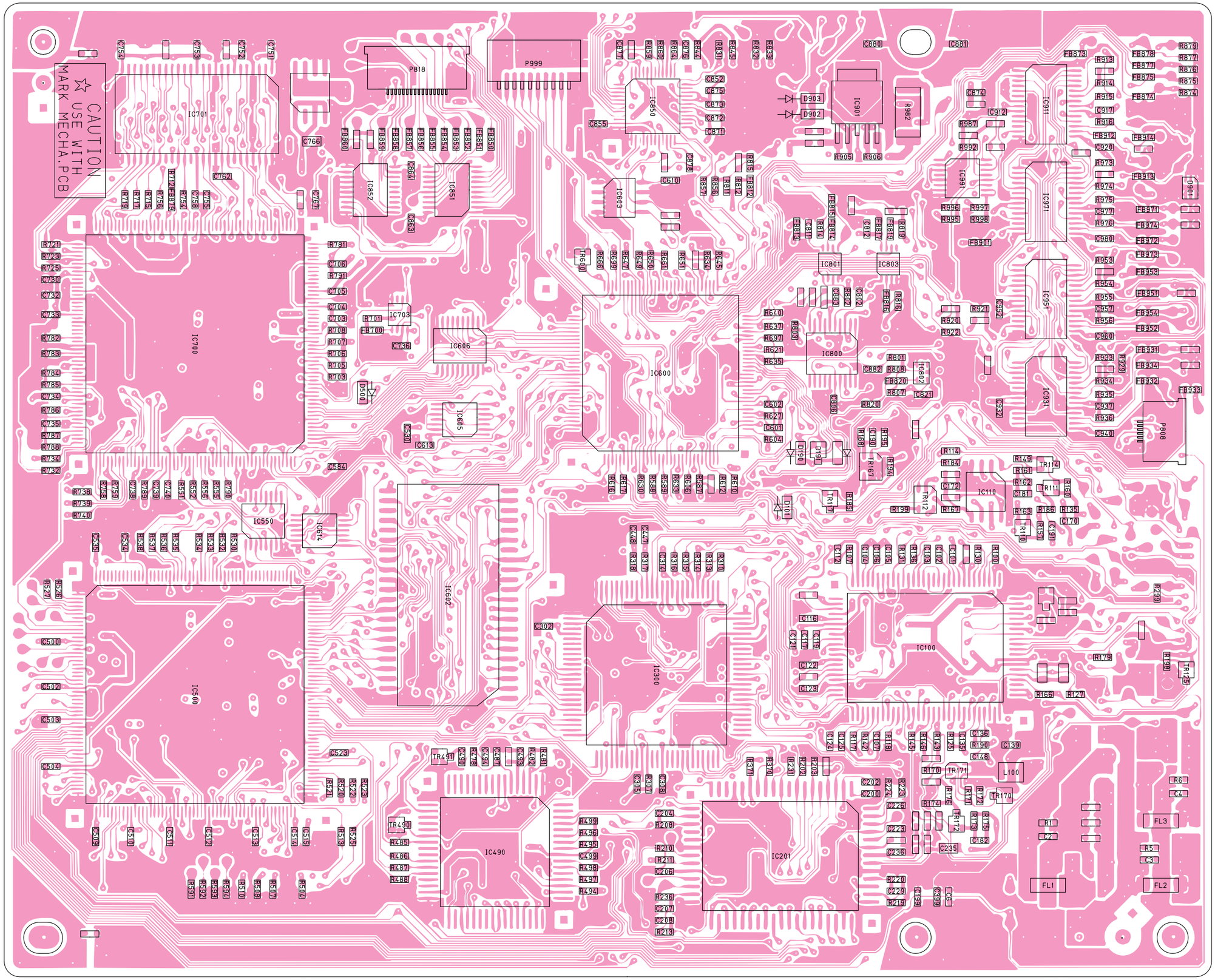

PC MAIN 2/3 (ODC/CPU/AV-DEC)
DA.DATA[0]
DA.DATA[1]
DA.DATA[2]
DA.DATA[3]
P4000
P4100C ONLY
R987 0
D901 UMN11N
C991 0.1 (B)
C992 22/6.3
IC991 TC74HC4053AFT
R991 0
R992 0
1Y
2Y
3Z
Z-COM
OZ
INH
VEE
GND
VCC
Y-COM
X-COM
1X
OX
A
B
C
R995 10K
R997 10K
R998 18K
R996 18K
DASW0
DASW1
IC911 PCM1735E
IC931 PCM1735E
IC951 PCM1735E
IC971 PCM1735E
LRCK
DATA
BCK
CLKO
XTI
XTO
DGND
VDD
VCC2R
AGND2R
EXTR
NC
VOUTR
AGND1
ML
MC
MD
XMUTE
MODE
XCS
XRST
XZEROL
VCC2L
AGND2L
EXTL
XZERO R
VOUTL
VCC1
R990 0
R989 0
R913 0
R914 0
XDACS0
R915 4.7K
C911 4.7/35
C912 0.1(B)
C915 10/16
C916 0.1(B)
C917 0.1(B)
C918 4.7/35
C919 10/16
R916 4.7K
C920 0.1(B)
C921 100/6.3
R933 0
R934 0
XDACS1
R935 4.7K
C931 4.7/35
C932 0.1(B)
C935 10/16
C936 0.1(B)
C937 0.1(B)
C938 4.7/35
C939 10/16
R936 4.7K
C940 0.1(B)
C941 100/6.3
R953 0
R954 0
XDACS2
R955 4.7K
C951 4.7/35
C952 0.1(B)
C955 10/16
C956 0.1(B)
C957 0.1(B)
C958 4.7/35
C959 10/16
R956 4.7K
C960 0.1(B)
C961 100/6.3
R973 0
R974 0
XDACS3
R975 4.7K
C971 4.7/35
C972 0.1(B)
C975 10/16
C976 0.1(B)
C977 0.1(B)
C978 4.7/35
C979 10/16
R976 4.7K
C980 0.1(B)
C981 100/6.3
FB911 R301A DZFML
FB912 R301A ML
FB914 R301A DZFMR
FB913 R301A MR
DZFML
ML
DZFMR
MR
AGND
FB931 R301A
FB932 R301A
FB933 R301A
FB934 R301A
FB951 R301A
FB952 R301A
FB953 R301A
FB954 R301A
FB971 R301A
FB972 R301A
FB973 R301A
FB974 R301A
R926
R927
R928
R929
R930
P804 24FLT-SM1
NC 24
NC 23
NC 22
NC 21
NC 20
AGND 19
DZFL 18
L 17
AGND 16
R 15
DZFR 14
AGND 13
DZFSL 12
SL 11
AGND 10
SR 9
DZFSR 8
AGND 7
DZFC 6
CENTER 5
AGND 4
SUBW 3
DZFSUBW 2
AGND 1
Not for DV4000
DGND
DA.LRCK
DA.BCK
DACCLK
FB901 R301A
IC901 BA05FP
VCC
NC1
GNDFIN
NC2
OUT
D902 1SS355
D903 1SS355
R901 0
R902 0
R905 0
R906 0
ZNR901 NUC
AL5V
AL3.3V
AL11V
R982B 68
C901 1(F)
C903 10/16
C904 1(B)
XDARST
XDACS3
XDACS2
XDACS1
XDACS0
XDAMUTE0
XDAMUTE1
DACMD
DACMC
DACML
R920 0
R921 0
R922 0
R923 0
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/10W( )
ALL CAPACITORS IN µF WV(P=pF)
ALL INDUCTORS IN µH( )
D6008A5010 PC MAIN(C3) A-DAC BLK

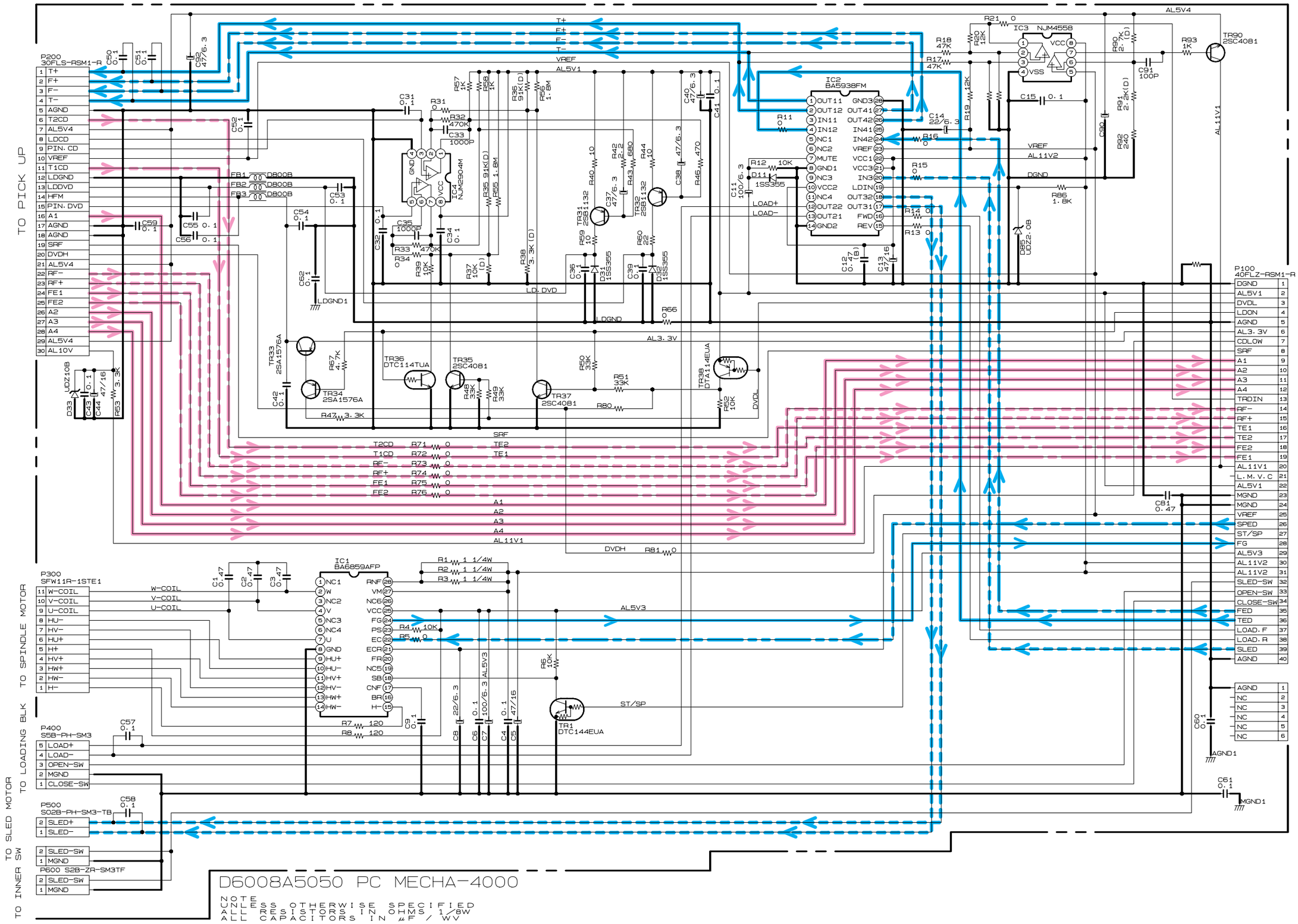
MAIN TOP VIEW



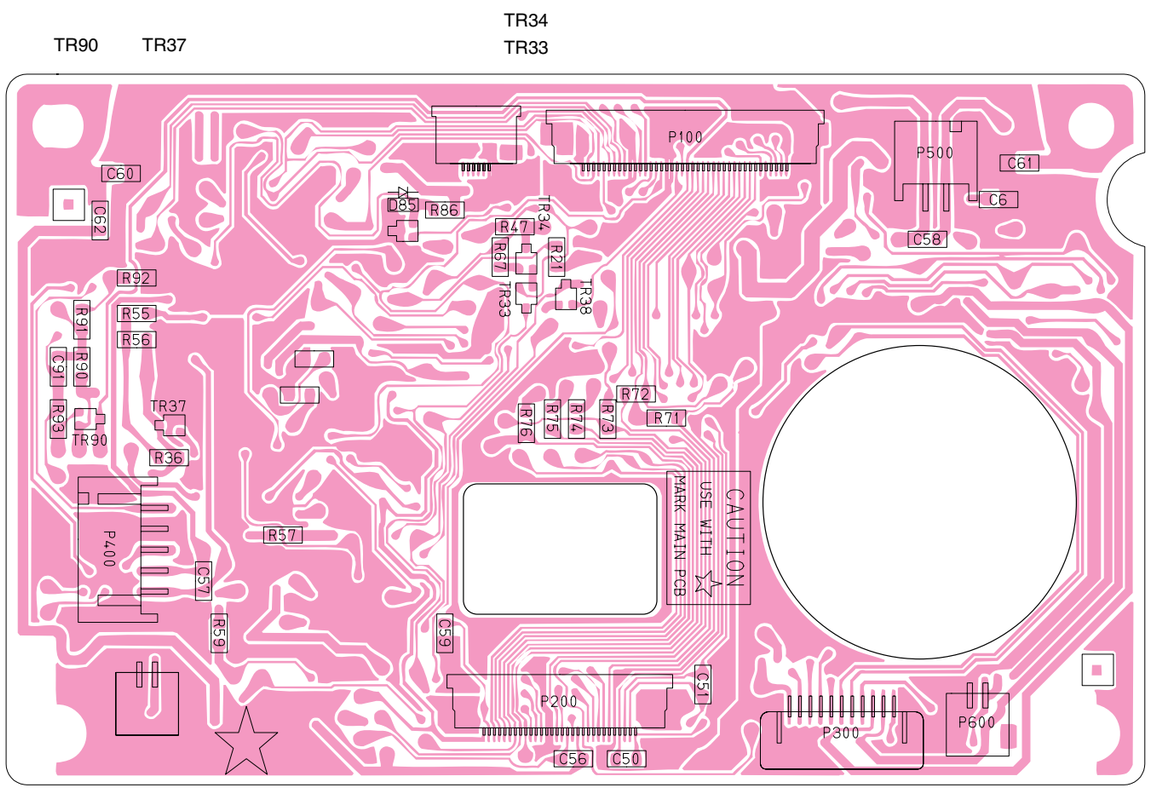
MAIN BOTTOM VIEW

IC701 IC700 IC500 IC550 IC614 IC852 IC851 IC606 IC703 IC602 IC605 TR490 TR491 IC490 IC850 IC600 TR600 IC603 IC300 IC201 IC801 IC901 IC800 IC803 TR117 TR167 IC802 IC991 TR112 IC110 TR170 ~TR712 IC911 IC971 TR114 IC951 TR111 IC931 TR110 TR125

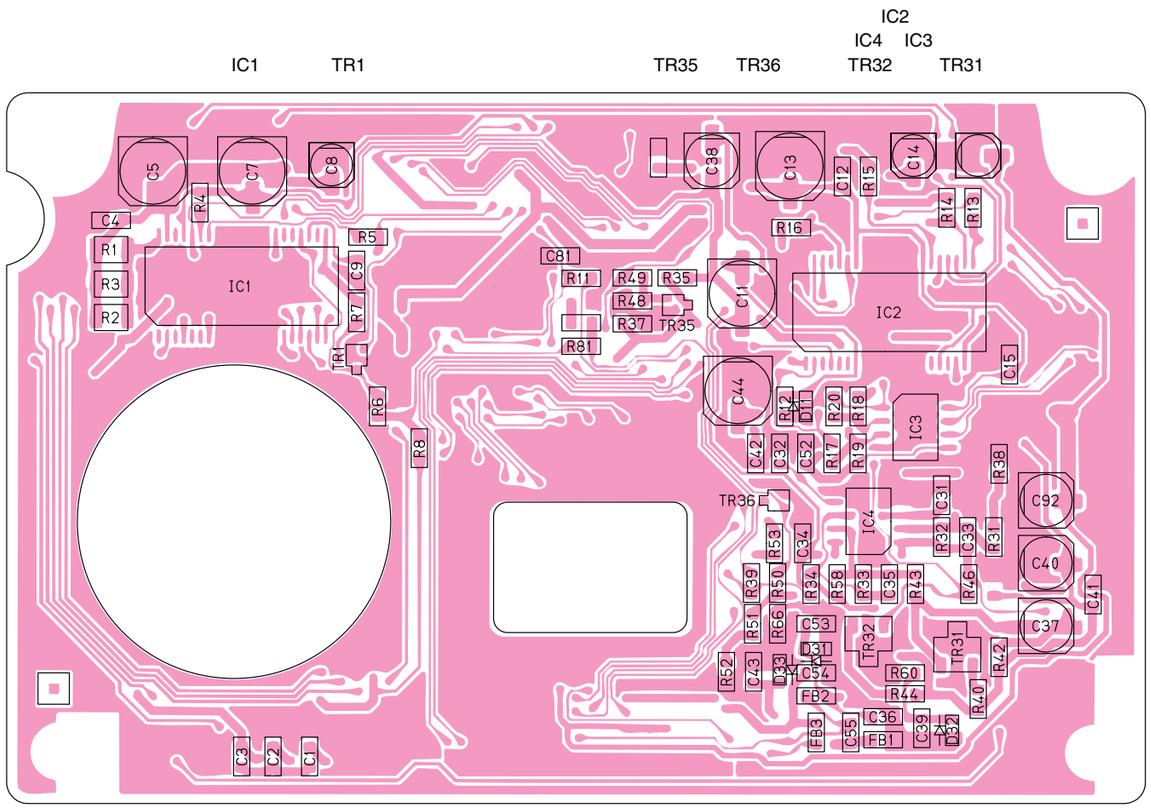



TO PICK UP
P200 30FLS-RSM1-R
1 T+
2 F+
3 F-
4 T-
5 AGND
6 T2CD
7 AL5V4
8 LDCD
9 PIN. CD
10 VREF
11 T1CD
12 LDGND
13 LDDVD
14 HFM
15 PIN. DVD
16 A1
17 AGND
18 AGND
19 SRF
20 DVDH
21 AL5V4
22 RF-
23 RF+
24 FE1
25 FE2
26 A2
27 A3
28 A4
29 AL5V4
30 AL10V
T+
F+
F-
T-
VREF
AL5V1
IC2 BA5938FM
IC3 NJM4558
IC4 NJM2904M
TR90 2SC4081
TR31 2SB1132
TR32 2SB1132
TR33 2SA1576A
TR34 2SA1576A
TR35 2SC4081
TR36 DTC114TUA
TR37 2SC4081
TR38 DTA114EUA
D11 1SS355
D12 1SS355
D13 1SS355
D85 UDZ2.0B
D33 UDZ10B
AL5V4
AL11V1
VREF
AL11V2
DGND
LOAD+
LOAD-
LD. DVD
DGND
AL3.3V
LDGND1
SRF
T2CD
T1CD
RF-
RF+
FE1
FE2
A1
A2
A3
A4
AL11V1
DVDH
P100 40FLZ-RSM1-R
DGND 1
AL5V1 2
DVDL 3
LDON 4
AGND 5
AL3.3V 6
CDLOW 7
SRF 8
A1 9
A2 10
A3 11
A4 12
TRDIN 13
RF- 14
RF+ 15
TE1 16
TE2 17
FE2 18
FE1 19
AL11V1 20
L.M.V.C 21
AL5V1 22
MGND 23
MGND 24
VREF 25
SPED 26
ST/SP 27
FG 28
AL5V3 29
AL11V2 30
AL11V2 31
SLED-SW 32
OPEN-SW 33
CLOSE-SW 34
FED 35
TED 36
LOAD.F 37
LOAD.R 38
SLED 39
AGND 40
TO PC MAIN
P300 SFW11R-1STE1
11 W-COIL
10 V-COIL
9 U-COIL
8 HU-
7 HV-
6 HU+
5 H+
4 HV+
3 HW+
2 HW-
1 H-
W-COIL
V-COIL
U-COIL
TO SPINDLE MOTOR
IC1 BA6859AFP
AL5V3
ST/SP
TR1 DTC144EUA
P400 S5B-PH-SM3
5 LOAD+
4 LOAD-
3 OPEN-SW
2 MGND
1 CLOSE-SW
TO LOADING BLK
P500 S02B-PH-SM3-TB
2 SLED+
1 SLED-
TO SLED MOTOR
2 SLED-SW
1 MGND
P600 S2B-ZR-SM3TF
2 SLED-SW
1 MGND
TO INNER SW
AGND 1
NC 2
NC 3
NC 4
NC 5
NC 6
AGND1
MGND1
D6008A5050 PC MECHA-4000
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS, 1/8W
ALL CAPACITORS IN μF / WV

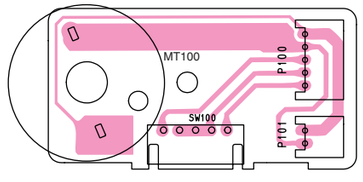
MECHA TOP VIEW



MECHA BOTTOM VIEW

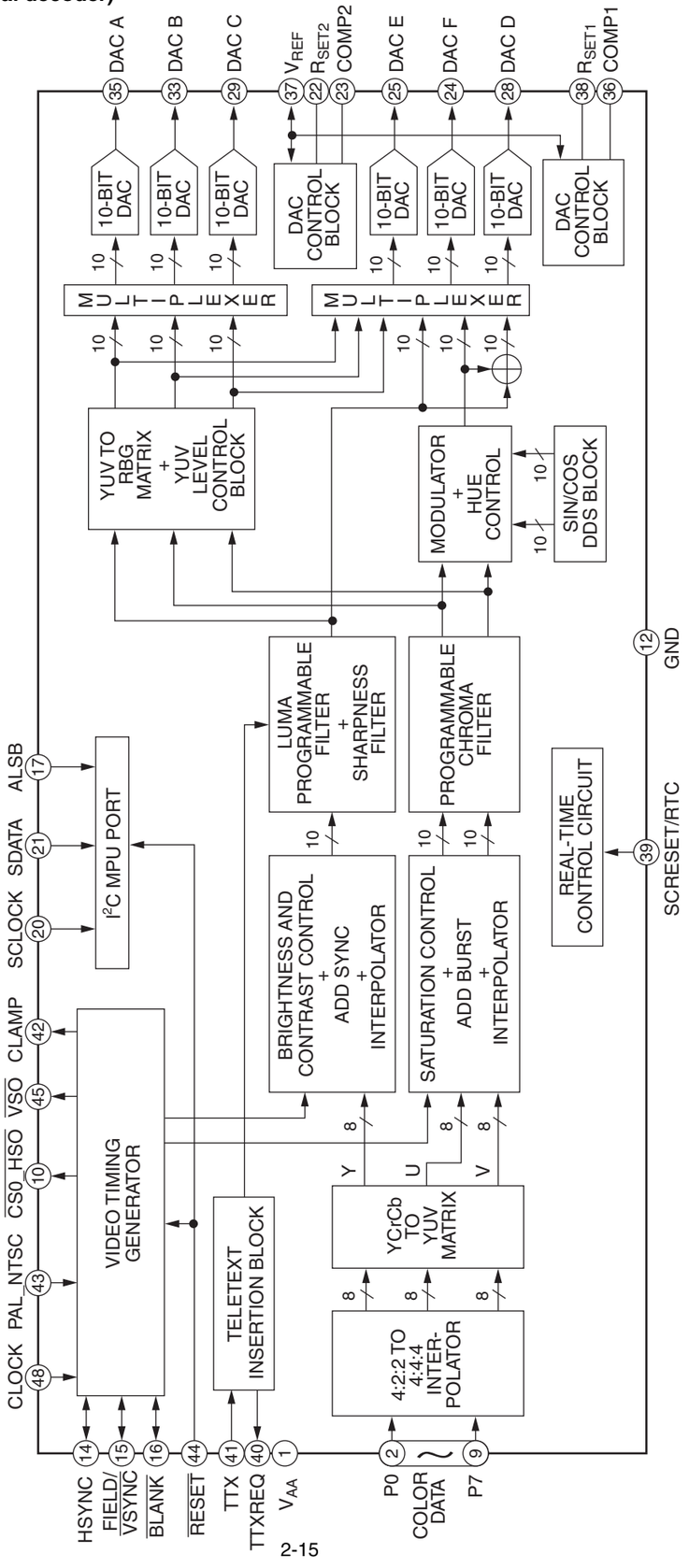


LOADING

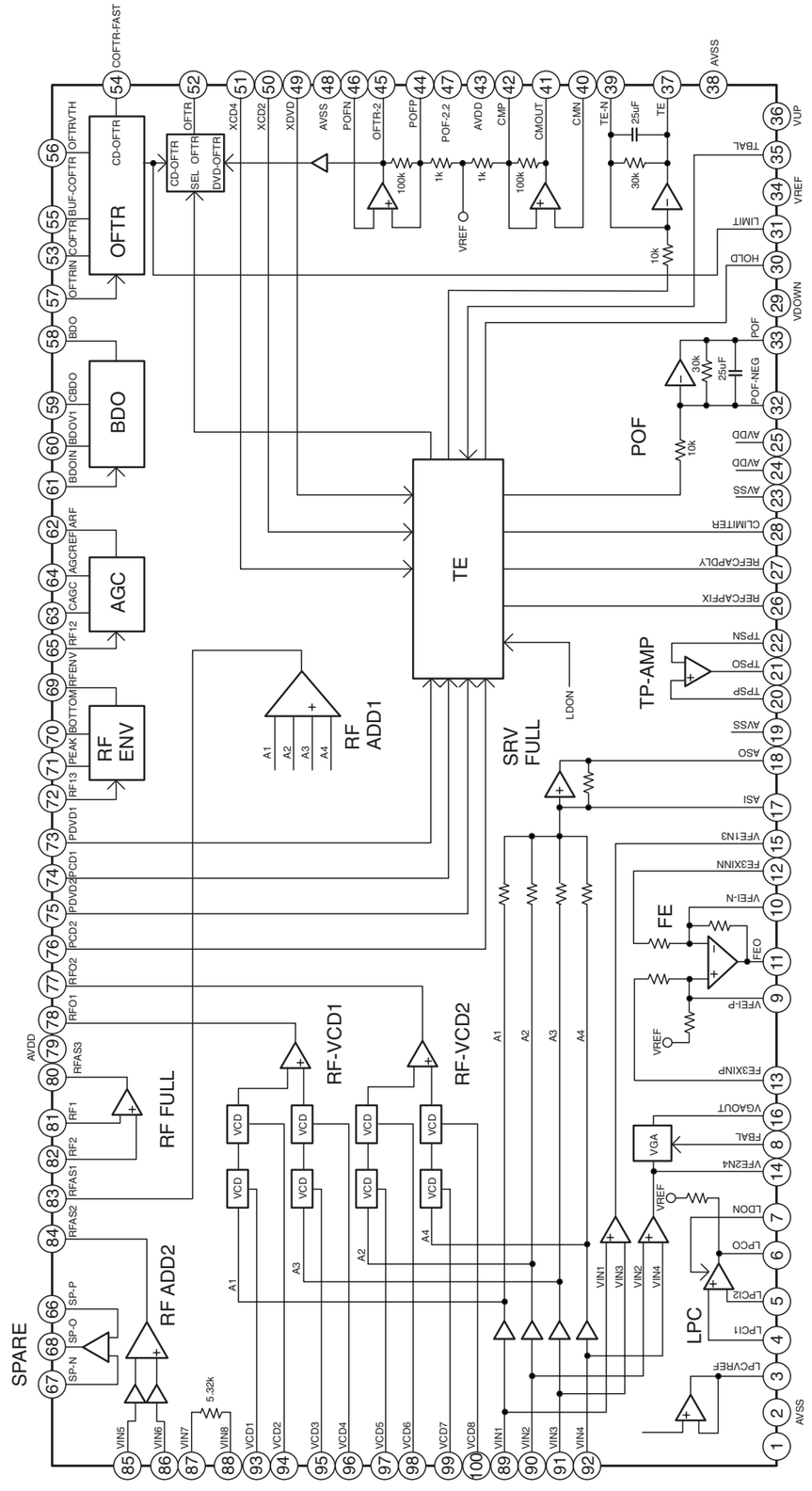


2.2 MICROPROCESSOR AND IC DATA

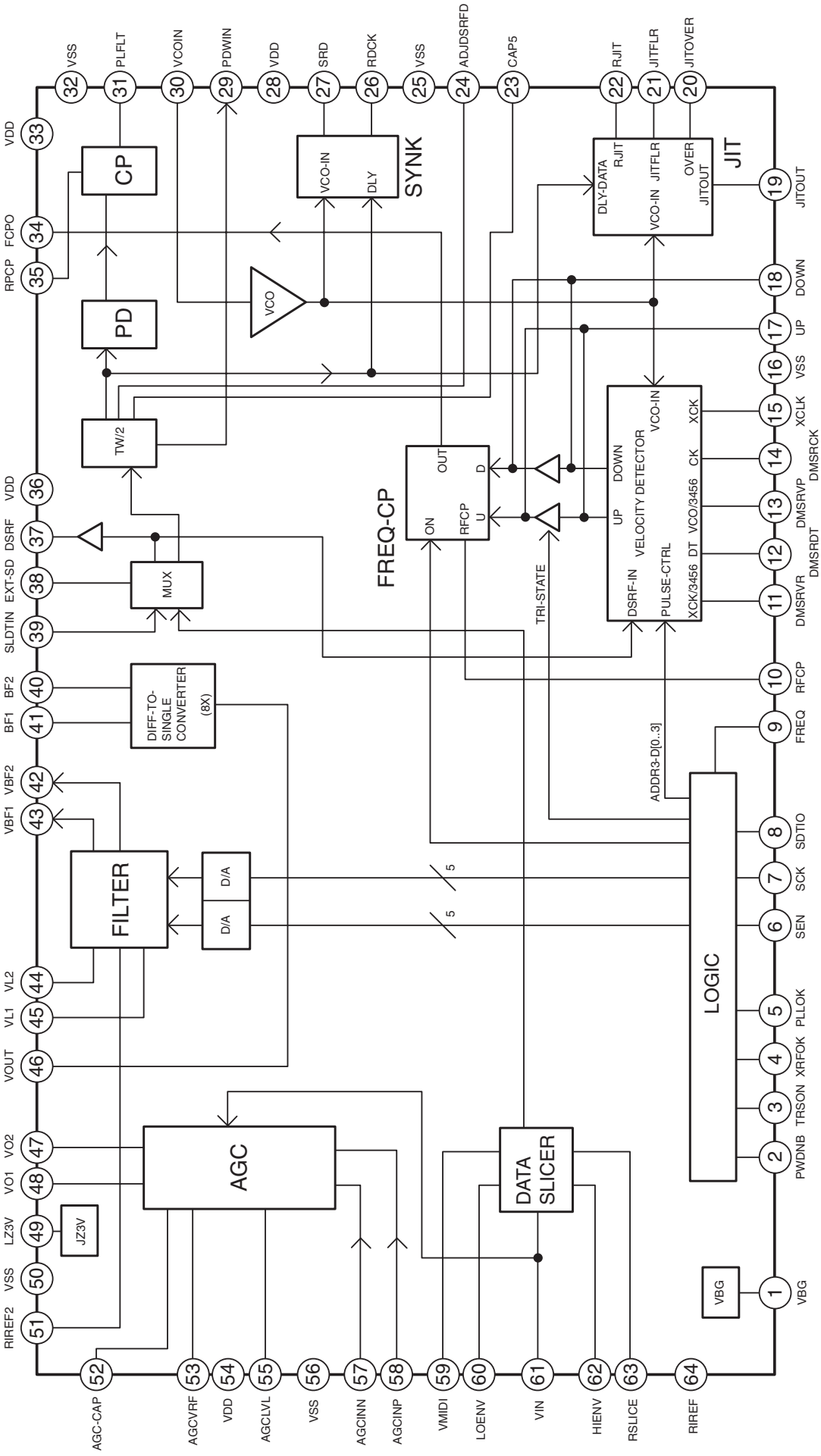
ADV7172 (Video signal decoder)



CYC11AP000 (DVD Pre AMP)



CYC12MP000(DVD Read Channel)

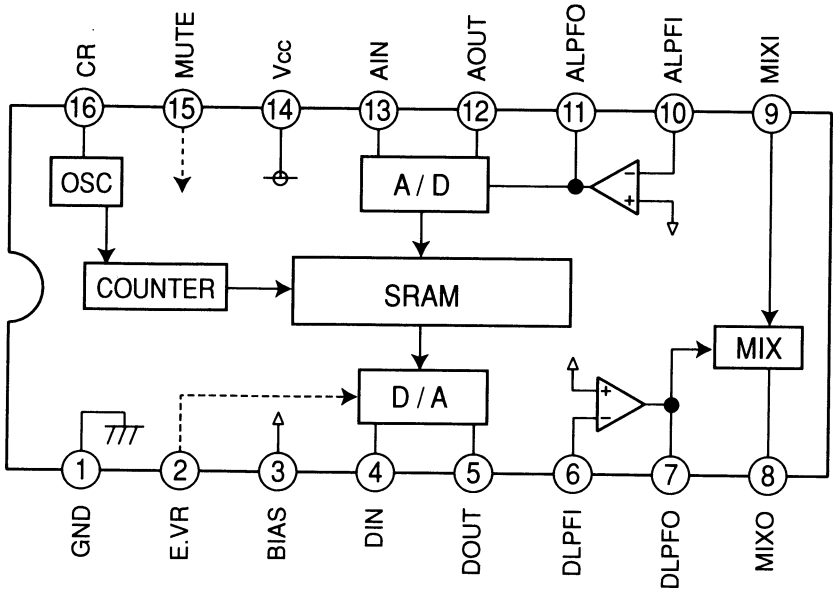


MB90574 (CPU/System control MI-COM)

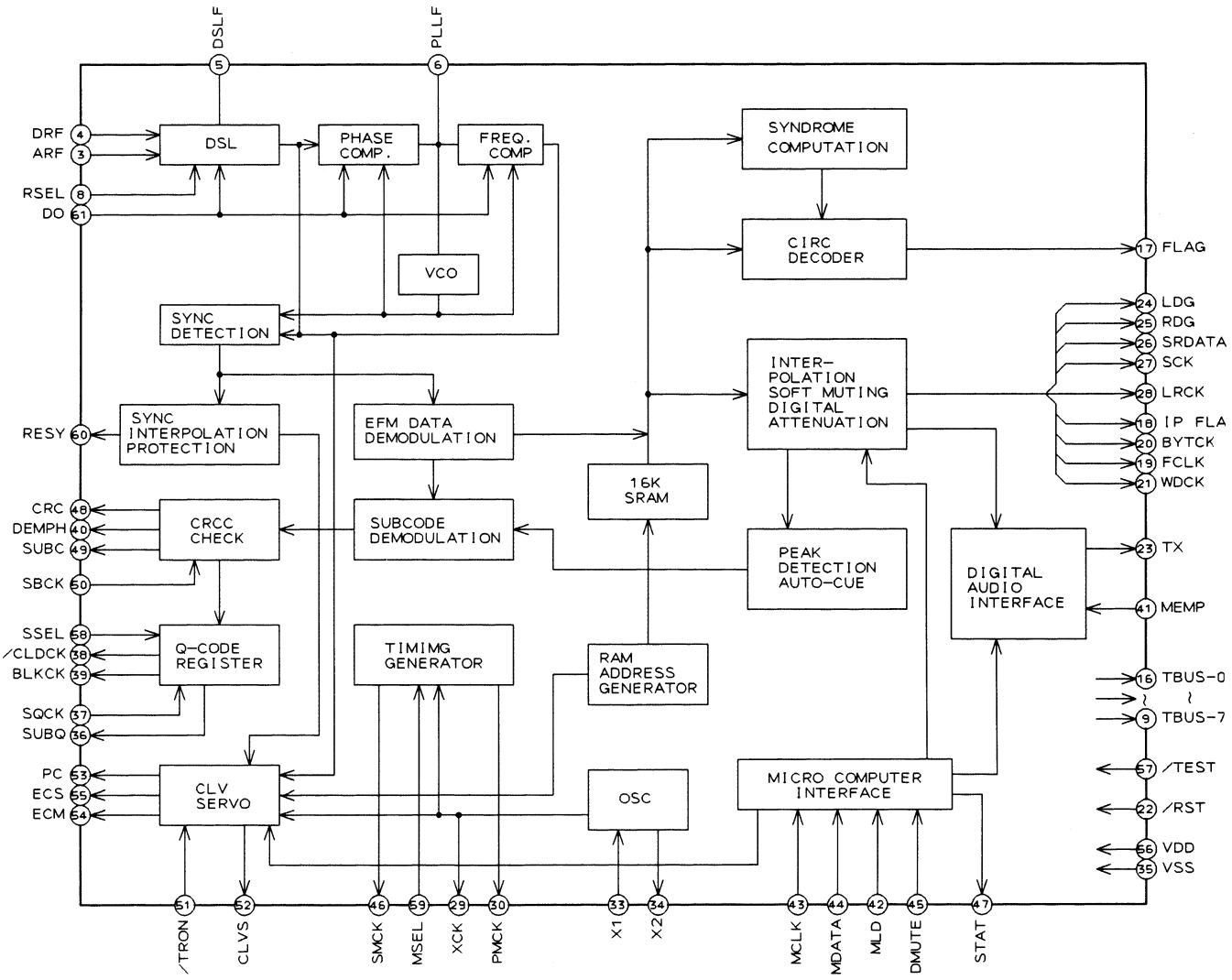
Pin No.	Port Name	I/O	FUNCTION
1	RDX	O	System bus read strobe signal output.
2	WEX	O	System bus lower 8 bit write strobe signal output.
3	BOOT	O	Ziva MI-COM transmission control output.
4	CDLOW	O	Disc judge output.
5	LD.SW1	O	Laser control output 1.
6	RDY	I	System bus ready input.
7	LD.SW2	O	Laser control output 2.
8,54,94	Vcc	Ð	+5 V power supply pin.
9-11,21,23, 56	N.C	Ð	No connection.
12	OPE.DOUT	I	Serial data input from the output control MI-COM.
13	OPE.DIN	O	Serial data output to the output control MI-COM.
14	OPE.CLK	I	Serial clock input from the output control MI-COM.
15	SLI.LV	O	PWM output for data slice level control of the read channel MI-COM.
16	L.M.V.C	O	PWM output for disc changer tray rotation control.
17	XAVRST	O	Reset control output for the Ziva-3 MI-COM.
18	SYS.XBSY	O	Serial data ready/busy output to the output control MI-COM.
19	DVD.L	O	DVD/CD laser select control output.
20	SUBQ	I	CD-DSP Q data input.
22	SQCK	O	Clock output for CD-DSP Q data.
24	CRCOK	I	Sector ID error O.K. input.
25	XCHANGER	I	Disc changer operation setting pin.
26	XDAMUTE0	O	Audio section mute control output. (L: mute on)
27	ICESEL	O	IEC958 digital out select output. (L: Ziva, H: CD)
28	XDAMUTE1	O	Audio section mute control output. (L: mute on)
29	CLKSEL1	O	Clock generator SRO control output. (L: normal, H: double)
30	CLKSEL2	O	Clock generator FSO control output. (L: 48 kHz, H: 44.1 kHz)
31	SYSRST	O	System reset output.
32	DRPOUT	I	Drop out input.
33,63,91,119	Vss	Ð	Ground pin.
34	C	Ð	Capacitor connecting pin.
35	PAL/NTSC	O	Video decoder PAL/NTSC select output.
36	ENRST	O	Video encoder IC reset output.
37	XDARST	O	DAC reset output.
38	DVcc	Ð	+5 V power supply pin for digital circuit.
39	DVss	Ð	Ground pin for digital circuit.
40	FCSBAL	I	Focus balance adjustment input.
41	TRKBAL	I	Tracking balance adjustment input.
42	Avcc	Ð	+5 V power supply pin for analog circuit.
43	AVRH	I	Connect to +5 V.
44	AVRL	I	Connect to ground.
45	Avss	Ð	Ground pin for analog circuit.
46	TE	I	A/D input for disc judge signal 1 (Tracking error).
47	RFENV	I	A/D input for disc judge signal 2 (RF envelope).
48	FE	I	A/D input for disc judge signal 3 (Focus error).
49	JIT.OUT	I	A/D input for jitter out.
50	DASW1	O	Audio DAC L/R channel input data select control output.
51	DACML	O	Audio DAC serial latch output.
52	DACMC	O	Audio DAC serial clock output.
53	DACMD	O	Audio DAC serial data output.
55	DASW0	O	Audio DAC mix channel input data select control output.
57	DEC.CS	O	Ziva MI-COM chip select output.
58	XDACS1	O	Audio DAC (L/R) chip select output.
59	XDACS2	O	Audio DAC (SL/SR) chip select output.
60	XDACS3	O	Audio DAC (C/SUBW) chip select output.
61	XDACS0	O	Audio DAC (MIXL/MIXR) chip select output.
62	CHG.V.C	O	Disc changer motor control output.
64	DISC.CHK	I	Disc judge assist.
65	XMULTI	I	2 CH/XMULTICH setting control input.
66	DASW2	O	Four audio DAC test mode input data select.

Pin No.	Port Name	I/O	FUNCTION
67	AVRTM	I	ECC interruption request input (end of output stream of 2060 bytes data) .
68,69	DGND	Ð	Ground for digital section.
70	SDA(I2C)	I/O	Serial data in/out from/to EEP-ROM & video encoder.
71	SCL	O	Serial clock output to the EEP-ROM & video encoder.
72	STAT	I	CD-DSP status input.
73	X0A	I	Not used.
74	X1A	O	Not used.
75	XSRTM	I	ECC interruption request input (end of block signal).
76	XINT.DEC	I	Interruption request from the Ziva MI-COM.
77	XINT.SER	I	Interruption request from the servo MI-COM.
78	OPEN-SW	I	Disc tray open detect input pin.
79	CLOSE-SW	I	Disc tray close detect input pin.
80	CLAMP-SW	I	Disc changer tray position detect input pin.
81	PHOT-IN	I	Disc changer tray position detect photo sensor input pin.
82	LOAD.F	O	Loading motor direction control output.
83	LOAD.R		
84	CHG.M.R	O	Disc changer motor control output.
85	CHG.M.L		
86	HSTX	I	hardware standby pin. (Pulled up)
87-89	MD0-MD2	I	Bus mode setting pins.
90	RSTOUT	I	Reset signal input from the output control MI-COM.
92	X0	I	4 MHz crystal connecting pin.
93	X1	O	
95-102	HAD00-HAD07	I/O	System bus serial data/address I/O pins.
103-116	HA08-HA21	O	System bus address output pins.
117,118	HA22,HA23	O	System bus address output pins for chip select circuit.
120	ALE	O	System bus address latch enable output.

BU9253 (Digital delay)



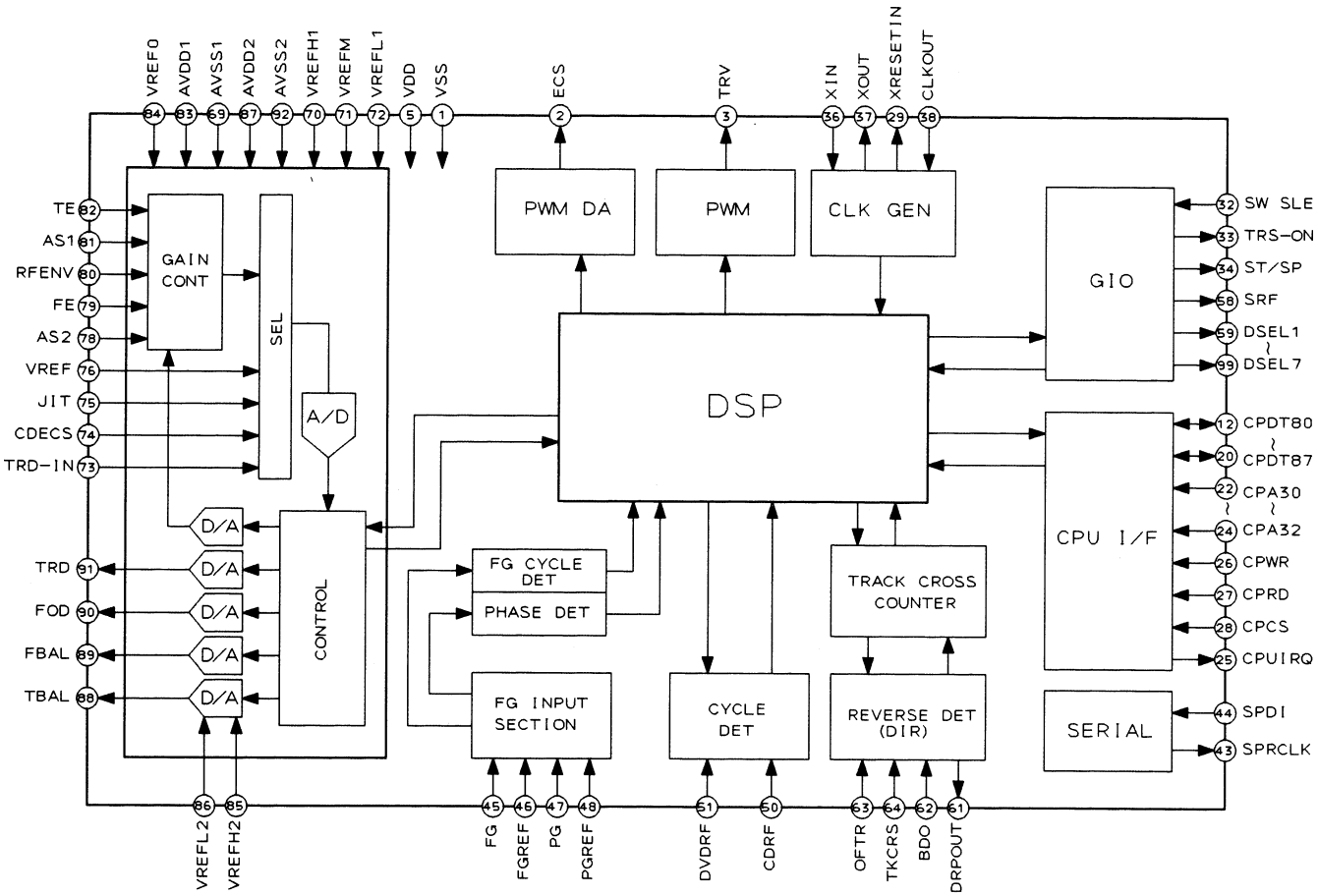
MN66261 (CD signal processing)



MN66261 (CD signal processing)

PIN No.	PORT NAME	I/O	FUNCTION
1	Avss	–	Ground pin for DSL, PLL circuit.
2	IREF	I	Reference current input pin.
3	ARF	I	RF signal input pin.
4	DRF	–	Bias pin for DSL.
5	DSLF	O	Loop filter pin for DSL.
6	PLLF	I/O	Loop filter pin for PLL.
7	Avdd	–	+5 V power supply pin for DSL, PLL.
8	RSEL	–	RF signal polarity setting pin. (Brightness level: H →"RSEL: H)
9-16	TBUS0 - 7	O	Test pins. Normally, these pins are open circuit.
17	FLAG	O	Flag output pin.
18	IPFLAG	O	Interpolation flag pin. (H: interpolate)
19	FCLK	O	Frame clock output (from crystal OSC). (fCLK = 7.35 kHz, 14.7 kHz when dubble speed)
20	BYTCK	O	Byte clock out.
21	WDCK	O	Word clock out.
22	/RST	I	Reset input pin (L: reset).
23	TX	O	Digital audio interface output.
24	LDG	O	L-CH deglitch signal output.
25	RDG	O	R-CH deglitch signal output.
26	SRDATA	O	Serial data output.
27	SCK	O	Bit clock output for SRDATA.
28	LRCK	O	Left-right discrimination clock output.
29	XCK	O	Crystal OSC clock output (fXCK = 16.9344 MHz).
30	PMCK	O	1/192 counted down clock signal from the crystal OSC. (fPMCK = 88.2 kHz)
31	CSEL	I	Crystal OSC frequency select pin. (L: 16.9344 MHz, H: 33.8688 MHz)
32	PSEL	–	Test pin (normally, open circuit).
33	X1	I	Crystal connecting pin. (f = 16.9344 MHz or 33.8688 MHz)
34	X2	O	Crystal connecting pin. (f = 16.9344 MHz or 33.8688 MHz)
35	Vss	–	Ground pin.
36	SUBQ	O	Subcode Q output.
37	SQCK	I	External clock input for subcode Q register.
38	/CLDCK	O	Subcode frame clock signal output. (fCLDCK = 7.35 kHz in normal playback)
39	BLKCK	O	Subcode block clock signal. (fBLOCK = 75 Hz in normal playback)
40	DEMPH	O	De-emphasis control output. (H: de-emphasis on)
41	MEMP	I	Emphasis signal input for digital audio interface.
42	MLD	I	MI-COM command LOAD signal input. (L: LOAD)
43	MCLK	I	MI-COM command CLOCK signal input. (Data will be latched with rising edge of the pulse)
44	MDATA	I	MI-COM command DATA input.
45	DMUTE	I	Muting input.
46	SMCK	O	1/2 counted down crystal OSC signal output when MSEL = H. 1/4 counted down crystal OSC signal output when MSEL = L.
47	STAT	O	Status signal output (CRC, CUE, CLVS, TTSTOP, FCLV, SQOK).
48	CRC	O	Subcode CRC check output. (H: OK, L: no good)
49	SUBC	O	Subcode serial output data.
50	SBCK	I	Clock input for subcode serial output.
51	/TRON	I	Tracking servo on signal. (L: tracking on)
52	CLVS	O	Spindle servo phase synchronization judge output. (H: CLV, L: rough servo)
53	PC	O	Spindle motor on signal (L = on).
54	ECM	O	Spindle motor drive signal output (forced mode, 3-state).
55	ECS	O	Spindle motor drive signal output (servo error signal, 3-state)
56	Vdd	–	+5 V power supply.
57	/TEST	I	Test pin (normally, H).
58	SSEL	I	Output mode select pin for SUBQ pin. (H: Q-code buffer is used)
59	MSEL	I	Output frequency select pin for SMCK pin. (H: SMCK = 8.4672 MHz, L: 4.2336 MHz)
60	RESY	O	Re-synchronization signal of the frame synchronization signal. (H: synchronized, L: not synchronized)
61	DO	I	Drop out signal (H: drop out)
62	EFM	O	EFM signal output.
63	PCK	O	PLL extraction clock output. (fPCK = 4.3218 MHz in normal playback)
64	PDO	O	Phase comparison signal between EFM and PCK signal.

MN67700 (Servo processing IC)



MN67700 (Servo processing IC)

PIN No.	PORT NAME	I/O	FUNCTION
1	Vss	–	Ground pin for digital circuit.
2	ECS	O	Spindle motor drive signal output.
3	TRV	O	Traverse (sled motor) drive signal output.
4,6-11	N.C	–	No connection.
5,21,39,55	Vdd	–	Power supply for digital circuit.
12-15,17-20	CPDT80-87	I/O	CPU I/F data I/O pins.
16,35,60	Vss	–	Ground for digital circuit.
22-24	CPA30-32	I	CPU I/F address input pins.
25	CPUIRQ	O	CPU interruption signal output.
26	CPWR	I	CPU I/F write strobe input pin.
27	CPRD	I	CPU I/F read strobe input pin.
28	CPCS	I	CPU I/F chip select input pin.
29	XRESETIN	I	Reset signal input. (L: reset)
30	CRCOK	I	ID check signal input pin from the DEM/ECC MI-COM.
31	GIO01	–	No connection.
32	SW SLE	I	Traverse innermost position detect signal input.
33	TRS-ON	O	Tracking servo on signal. (H: tracking servo on)
34	ST/SR	O	Spindle motor drive (start/stop) control output (H: start).
35	Vss	I	Ground for digital circuit.
36	XIN	I	Crystal connecting pin (40 MHz).
37	XOUT	O	Crystal connecting pin (40 MHz).
38	CLKOUT	O	Clock output (1/2 counted down of the crystal OSC).
40	SPEN	O	Serial enable output pin.
41	SPWCLK	O	Serial write signal synchronization clock.
42	SPDO	O	Serial data output pin.
43	SPRCLK	O	Serial clock output pin.
44	SPDI	I	Serial data input pin.
45	FG	I	FG signal input pin.
46	FGREF	I	FG reference signal input pin.
47	PG	I	PG signal input pin. (VCO/3456 XCK = 27 MHz)
48	PGREF	I	PG reference signal input pin. (XCK/3456 XCK = 27 MHz)
49,56,57,77	N.C	–	No connection.
50	CDRF	I	CD-RF signal input.
51	DVDRF	I	DVD-RF signal input.
52-54	MON0-2	O	Internal monitoring signal.
58	SRF	O	Head AMP gain select control .
59,66 95-99	DSEL1-7	O	VCD setting pins.
61	DRPOUT	O	Drop out signal output. (H: drop out)
62	BDO	I	Black drop out signal input. (H: black drop out)
63	OFTR	I	Off track signal input. (H: off track)
64	TKCRS	I	Track cross signal input pin.
65	RSV1	I	Test pin (normally open).
67	RSVO	I	Test pin (normally open).
68	TESTA	I	Test mode setting pin (normally open).
69	Avss1	I	Ground for analog circuit.
70	VREFH1	I	AD high level reference voltage input pin (3.75 V).
71	VREFM	I	AD middle reference voltage input pin (2.5 V).
72	VREFL1	I	AD low level reference voltage input pin (1.25 V).
73	TRD-IN	I	Tracking drive voltage input pin. (This pin is connected to 91 pin.)
74	CDECS	I	CD spindle motor drive signal input.
75	JIT	I	Jitter level signal input.
76	VREF	I	Reference voltage input.
78	AS2	I	PD all addition signal input.
79	FE	I	Focus error signal input.
80	RFENV	I	RF envelope signal input.
81	AS1	I	Addition signal of inner 4 divided PD.
82	TE	I	Tracking error signal input.
83	AVdd1	I	Power supply for analog circuit.
84	VREF0	I	Analog reference voltage input (2.5 V).
85	VREFH2	I	Analog high level reference voltage input pin (3.75 V).
86	VREFL2	I	Analog low level reference voltage input pin (1.25 V).
87	AVdd2	I	Power supply for analog circuit.
88	TBAL	O	Tracking balance adjust output.
89	FBAL	O	Focus balance adjust output.
90	FOD	O	Focus drive signal output.
91	TRD	O	Tracking drive signal output.
92	AVss2	I	Ground pin for analog circuit.
93	TESTD	I	Test mode setting pin (normally open).
94	MINTST	I	Test mode setting pin (normally open).
100	PWMCTL	I	PWM output control signal input (normal: L).

YMC13D000 (DVD Sync/ECC/Formatter)

Pin No.	Port Name	I/O	FUNCTION
1,12,26,35,46, 52,63,73,81, 95,105,118, 131,142,156, 170,182,195	VSS1-18	Ð	Ground pins.
2	SEL0	Ð	Test mode select pins.
3	SEL1		
4-6,8,10,10 11,14-22,28 29,116,117 119,125,126 132,171-174 194,197-206	TEST9-46	Ð	Test mode output pins. (Leave them open)
7	AVRTM	O	End of output stream of 2060 bytes data to CSS.
9	XSRTM	O	End of block signal.
13,25,33,45,53, 62,72,140,157, 169,196,208	VDD5-1to 5-12	Ð	+5 V power supply pin.
23	MLD	O	Microprocessor command load signal for CD-DA section. (L: load).
24	MCLK	O	Microprocessor command clock signal for CD-DA section. (data is atched on rising edge)
25	VDD5-2	Ð	+5 V power supply pin.
26	VSS3	Ð	Ground pin.
27	MDATA	O	Microprocessor command data for CD-DA section.
30	DEMPH	I	De-emphasis control input (H: on).
31	DMUTE	O	Muting output for CD-DA section.
32	STAT	I	Status signal (CRC, CUE, CLVS, TTSTOP, FCLV, SQOK) from CD-DA, STAT also goes to CPU.
34	PLLCLK	I	27 MHz clock input pin.
36	CHNDATA	I	Inverted bit data, which is changed on the falling edge of PLLCLK.
37	SDTIO	I/O	Serial bit data I/O.
38	ASPSCK	O	296ns clock (27 MHz/8) output.
39	SEN	O	High enable CPU to write data to 8 read-channel registers.
40	PLLOK	O	DVD frame sync (H: O.K)
41	LDON	O	Turn on the Laser diode.
42	XDVD	O	DVD mode control output.
43	XCD2	O	2X CD mode control output.
44	XCD4	O	4X CD mode control output.
47-51,54-56	SRMDT0-7	I/O	SRAM data bus.
57-61,64-71 74-77	SRMADR0-16	O	SRAM address bus.
78	XSRMCE	O	Chip enable signal to SRAM.
79	XSRMOE	O	Output enable signal to SRAM.
80	XSRMWE	O	Write enable signal to SRAM.
83-90	SDMDT0-7	I/O	SDRAM data bus.
91-93 96-103,106	SDMADR0-11	O	SDRAM address bus.
107	$\overline{\text{SDMRAS}}$	O	SDRAM row address strobe output.
108	$\overline{\text{SDMCAS}}$	O	SDRAM column address strobe output.
109	$\overline{\text{SDMWE}}$	O	SDRAM write enable output.
110	SDMDQML	O	SDRAM lower byte input/output mask.
111	SDMCLK	O	Clock signal output to SDRAM.
112	$\overline{\text{SDMCS}}$	O	SDRAM chip select control.
113	SDMDQML	O	SDRAM upper byte input/output mask.
115	SDMCKE	O	SDRAM clock enable.
120	XDSCO	O	Chip select signal to the SERVO MI-COM.
121	CRCOK	O	Sector IDs are O.K.
122-124	CPUADR0-2	O	(Video/Audio) HAL [2:0], V/A decoder, CPU address bus.

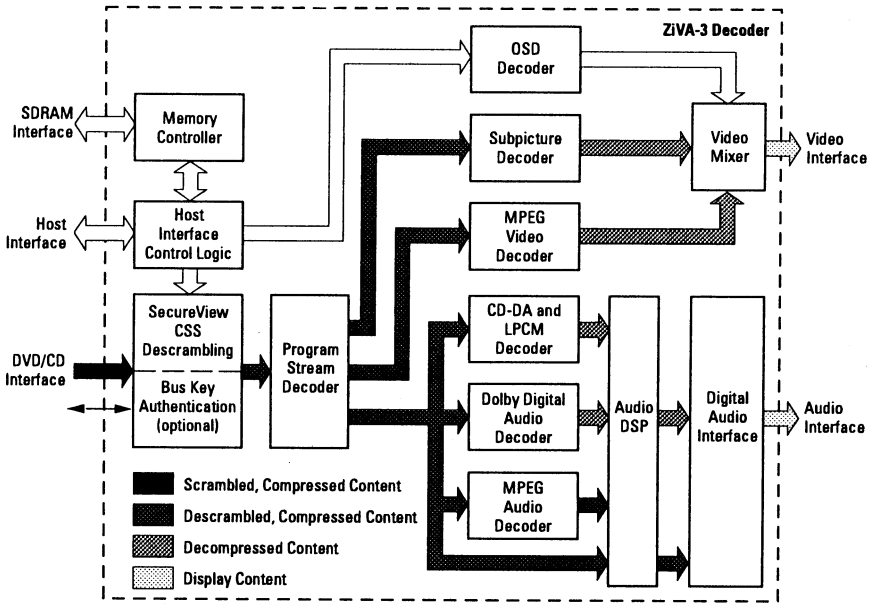
Pin No.	Port Name	I/O	FUNCTION
127-130 133-139 143-147	CPUADT0-15	I/O	CPU address/data bus.
141	XRESET	I	Global reset input.
148-152	CPUADT16-20	I	CPU address bus.
153	XALE	I	Address latch enable input.
154	XRE	I	Read strobe.
155	XINTO	O	ECC interrupt request.
158	XWEH	I	Write strobe signal.
159	XWAIT	O	CPU wait state control.
168	XHSTCS	O	Decipher chip select.
176	STENABLE	I	Stream data request.
177-181 185-187	STD0-7	O	Output stream data bus.
183	GENCLK	I	27 MHz clock input.
188	STCLK	O	Output stream data transfer clock, falling edge active, 6.75 MHz.
189	STVALID	O	Output stream data valid.
190	XVCS	O	Latched video decoder chip select.
191	XVDS	O	CPU read/write strobe.
192	HRXW	O	CPU write strobe, XWEH
193	ASCK	O	Latched audio decoder chip select.
207	SELCPU	I	1: data corresponds to CPUADT15-8. 0: data corresponds to CPUADT7-0.

ZIVA-3 (Advanced DVD decoder with integrated Audio DSP)

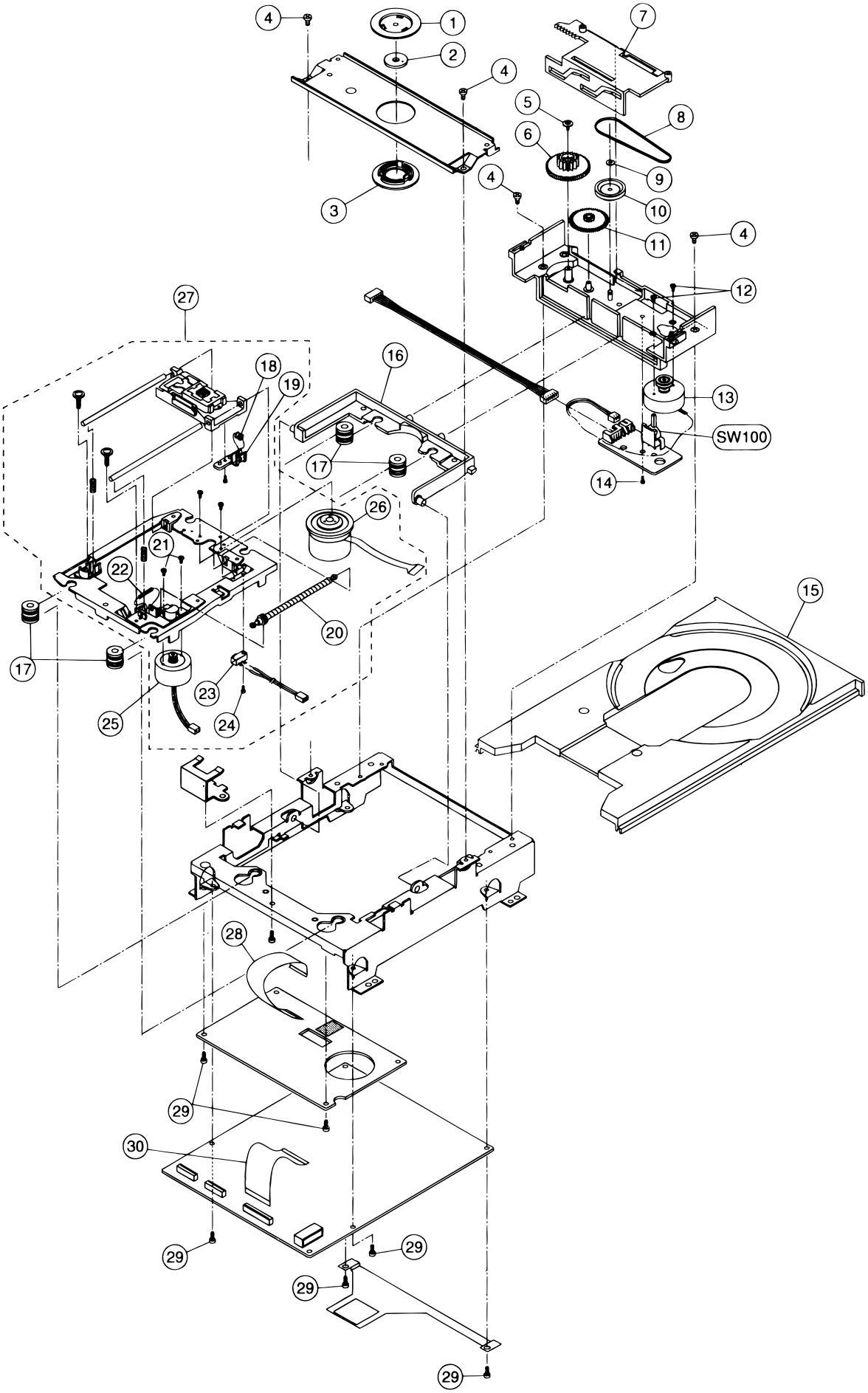
Pin No.	Port Name	I/O	FUNCTION
1,52,129 133,138,141 147,153,156 174,190	PIO0-10	I/O	Programmable I/O pins.
2-4,6,8-11	HDATA0-7	I/O	8 bit bi-directional host data bus.
5,12,17,27 36,40,47,55 61,65,69,75 81,87,91.95 101,107,113 117,123,134 149,160,181 193	VDD1-29	Đ	+3.3 V power supply pins.
7,14,19,29 38,42,49,57 63,67,71,77 83,89,93,97 103,109,115 119,125,136 146,151,162 170,183,195 199	VSS1-29	Đ	Ground pins.
13	$\overline{\text{RESET}}$	I	Hardware reset pin.
15	$\overline{\text{WAIT}}$/$\overline{\text{DTACK}}$	O	Transfer not complete / data acknowledge.
16	INT	O	Host interrupt.
21-26,28,30	HDATA8-15	I/O	Programmable I/O pins. Input mode after reset.
31-35,37,39 41,43-46	HADDR12-23	I/O	Programmable I/O pins. Output mode after reset.
51,130	NC	Đ	No connection.
53,54,56,58 59,60,62,64 66,68,70,72 73,74,76,78	MDATA0-15	I/O	Memory data.
79	LDQM	O	SDRAM LDQM.
80	UDQM	O	SDRAM UDQM.
82	$\overline{\text{MWE}}$	O	SDRAM write enable.
84	SD-CLK	O	SDRAM system clock.
85	$\overline{\text{SD-CAS}}$	O	Active low SDRAM column address.
86	SD-RAS	O	Active low SDRAM row address.
88,90	SDCS0,1	O	Active low SDRAM bank select.
92	EDO-CAS	O	EDO column address (Not used).
94	EDO-RAS	O	EDO row address (Not used).
96,98-100 102,104-106 108,110-112	MADDR0-11	O	Memory address output.
114,115,116 120-122,124 126,127	HADDR3-11	O	Memory address output (not used).
128	ROM-CS	O	Not used.
131,132,135 137,139,140	VDDA-F	Đ	Connect to +3.3 V power supply line.
142,143,145 148,150,152 154,155	VDATA0-7	O	Video data bus.
157	HSYNC	I/O	Horizontal sync.
158	VSYNC	I/O	Vertical sync.
159	DA-IEC	O	Bit stream data in IEC-1937 or PCM data out in IEC-958 format.
161,163-165	DA-DATA0-3	O	PCM data out, eight channels. Serial audio samples relative to DA-BCK clock.

Pin No.	Port Name	I/O	FUNCTION
166	DA-LRCK	O	PCM left/right clock. Identifies the channel for each audio sample.
167	DA-BCK	O	PCM bit clock output.
169	DA-XCK	I/O	Audio master frequency clock.
171	DAI-DATA	I	PCM input DATA (not used).
172	DAI-LRCK	I	PCM input LRCK (not used).
173	DAI-BCK	I	PCM input BCK (not used).
175	CLKSEL	I	Clock select pin. (H: internal, L: external)
176	A-VDD	Ð	+3.3 V power supply for analog section.
177	VCLK	O	Video clock. (27 MHz)
178	SYSCLK	I	System clock input. Decoder requires an external 27 MHz TTL oscillator.
179	A-VSS	Ð	Analog ground for PLL.
180	DVD-DATA0 /CD-DATA	I	Serial CD data.
182	DVD DATA1 /CD LRCK	I	DVD DATA1 input or CD-LRCK input.
184	DVD-DATA2 /CD BCK	I	DVD DATA2 input or CD bit clock input.
185	DVD-DATA3 /CD-C2PO	I	DVD DATA3 input. Asserted HIGH indicates a corrupted byte.
186-189	DVD-DATA4-7 CDG 4-7	I	DVD parallel compressed data from DVD DSP or CDG-SDATA/ VSFY/S0S1/SCLK signal input.
191	VREQUEST	O	Video request. Decoder asserts VREQUEST to indicate that the video input buffer has available space.
192	VSTROBE	I	Video strobe signal input.
194	AREQUEST	O	Audio request. Decoder asserts AREQUEST to indicate that the audio input buffer has available space.
196	V-DACK	I	Video data acknowledge (in synchronous mode). Asserted when DVD is valid.
198	A-DACK	I	Audio data acknowledge.
200	ERROR	I	Error in input data. If error signal is not available from the DSP, it must be grounded.
202-204	HADDR0-2	I	Host address bus. 3-bit address bus selects one of eight host interface registers.
205	DTACKSEL	I	Tie HIGH to select WAIT signal, LOW to select DTACK signal. (Motorola 68 K mode)
206	CS	I	Host chip select. Host asserts CS to select the decoder for a read or write operation.
207	R/W	I	Read/write strobe in M mode. Write strobe in I mode. Host asserts R/W LOW to select write and LOW to select read.
208	RD	I	Read strobe in I mode. Must be held HIGH in M mode.

ZIVA-3 (MPEG AV decoder)



2.3 EXPLODED VIEW AND PARTS LIST (TKM1000MZ)



(VERS. :VERSION, U:U.S.A., F:JAPAN, K:FAR EAST, **:EUROPE)

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
1		9965 000 04593	PLATE CLAMP	294W051010
2		9965 000 04594	MAGNET	294W012010
3		9965 000 04595	DISC CLAMP	294W005010
4		nsp	ST PAN26X06STL CMT	nsp
5		nsp	PT PAN20X05STL CMT C060	nsp
6		9965 000 04596	GEAR LOAD 2	294W058010
7		9965 000 04597	SLIDER UD	294W360010
8		9965 000 04598	BELT LOADING	294W264010
9		nsp	SLIT W.21X050X050PSL	nsp
10		9965 000 04599	PULLEY GEAR	294W262010
11		9965 000 04600	GEAR LOAD 1	294W058020
12		nsp	PAN17X2.5STL BZN PS3	nsp
13		9965 000 04601	LOADING MOTOR PART	*MM001050R
14		nsp	BT BID30X08STL CMT	nsp
15		9965 000 04602	DISC TRAY	294W163010
16		9965 000 04603	HOLDER TRAVERSE	294W104010
17		9965 000 04604	INSULATOR	294W130010
18		9965 000 04605	SP PUSH HOOK	294W115010
19		9965 000 04606	HOOK L.S	294W258010
20		9965 000 04607	SHAFT SCREW PART	294W117010
21		nsp	PAN17X3.5STL CMT PS3	nsp
22		9965 000 04608	SP PUSH L.S	*SP000980R
23		9965 000 04609	SW MICRO MPU10420MLB0	*SM000330R
24		nsp	ST BID20X08STL CMT	nsp
25		9965 000 04610	SLED MOTOR PART	*MM001040R
26		9965 000 04611	MOTOR CDS8A50T30-A/TT	*MM001060R
27		nsp	CH TRAVERSE BLK TKM-002	nsp
28		9965 000 04612	FFC BD P0.5 L50 30P	*YU000610R
29		nsp	ST BID30X06STL NI3	nsp
30		9965 000 04613	FFC BD P0.5 L70 40P	*YU000600R
SW100		9965 000 04614	SW LEVER MXS01070MLB0 1-01-02S	*SC000670R
001A		9965 000 04619	DVD MODULE BLK TKM100MZ (PCB C3M1)	ZK370K0100

2.4 ELECTRICAL PARTS LIST (TKM1000MZ)

ASSIGNMENT OF COMMON PARTS CODES.

RESISTORS

R＊＊＊ : 1) GD05 x x x 140, Carbon film fixed resistor,±5% 1/4W
R＊＊＊ : 2) GD05 x x x 160, Carbon film fixed resistor,±5% 1/6W
① Resistance value

Examples
① Resistance value

0.1Ω	001	10Ω	100	1kΩ	102	100kΩ	104
0.5Ω	005	18Ω	180	2.7kΩ	272	680kΩ	684
1Ω	010	100Ω	101	10kΩ	103	1MΩ	105
6.8Ω	068	390Ω	391	22kΩ	223	4.7MΩ	475

Note : Please distinguish 1/4W from 1/6W by the shape of parts used actually.

CAPACITORS

C＊＊＊ : CERAMIC CAP.
3) DD1 x x x x 370, Ceramic capacitor
Disc type
Temp.coeff. P350~N1000, 50V
③ Capacity value
② Tolerance

Examples
② Tolerance (Capacity deviation)
±0.25 pF 0
±0.5 pF 1
±5 % 5
Tolerance of COMMON PARTS handled here are as follows :
0.5 pF - 5 pF ..... ± 0.25 pF
6 pF - 10 pF ..... ± 0.5 pF
12 pF - 560 pF ... ± 5 %
③ Capacity value

0.5 pF	005	3 pF	030	100 pF	101
1 pF	010	10 pF	100	220 pF	221
1.5 pF	015	47 pF	470	560 pF	561

C＊＊＊ : CERAMIC CAP.
4) DK16 x x x 300, High dielectric constant ceramic capacitor
Disc type
Temp.chara. 2B4, 50V
④ Capacity value

Examples
④ Capacity value

100 pF	101	1000 pF	102	10000 pF	103
470 pF	471	2200 pF	222		

C＊＊＊ : 5) ELECTROLY CAP.(⫽), 6)FILM CAP (═)
5) EA x x x x x x 10, Electrolytic capacitor
One-way lead type,Tolerance ±20%
⑥ Working voltage
⑤ Capacity value

Examples
⑤ Capacity value

0.1μF	104	4.7μF	475	100μF	107
0.33μF	334	10μF	106	330μF	337
1μF	105	22μF	226	1100μF	118
2200μF	228				

⑥ Working voltage

6.3 V	006	25 V	025
10 V	010	35 V	035
16 V	016	50 V	050

6) DF15 x x x 350 → Plastic film capacitor
DF15 x x x 310 → One-way type, Mylar ±5% 50V
DF16 x x x 310 → Plastic film capacitor
One-way type, Mylar ±10% 50V
⑦ Capacity value

Examples
⑦ Capacity value

0.001μF (1000 pF)	102	0.1μF	104
0.0018μF	182	0.56μF	564
0.01μF	103	1μF	105
0.015μF	153		

NOTE 1) The above CODES(R＊＊＊ ,R＊＊＊ ,C＊＊＊ ,C＊＊ and C＊＊＊) are omitted on the schematic diagram in some case.
2) On the occasion, be confirmed the common parts on the parts list.
3) Refer to “Common Parts List” for the other common parts**(RI05, DD4, DK4)**.

NOTE ON SAFETY FOR FUSIBLE RESIST OR :

The suppliers and their type numbers of fusible resistors are as follows ;
1 . KOA Corporation

Part No.(MJI)	Type No.(KOA)	Description
NH05 x x x 140	RF25S x x x x Ω	J ±5% (1/4W)
NH05 x x x 120	RF50S x x x x Ω	J ±5% (1/2W)
NH85 x x x 110	RF73B2A x x x x Ω	J ±5% (1/10W)
NH95 x x x 140	RF73B2E x x x x Ω	J ±5% (1/4W)

＊ Resistance value　　Resistance value(0.1Ω - 10kΩ)

2. Matsushita Electronic Components Co., Ltd

Part No.(MJI)	Type No.(MEC)	Description
NF05 x x x 140	ERD-2FCJ x x x	(±5% 1/4W)
RF05 x x x 140		
NF02 x x x 140	ERD-2FCG x x x	(±2% 1/4W)
RF02 x x x 140		

＊Resistance value

Examples
＊Resistance value

0.1Ω	001	10Ω	100	1kΩ	102	100kΩ	104
0.5Ω	005	18Ω	180	2.7kΩ	272	680kΩ	684
1Ω	010	100Ω	101	10kΩ	103	1MΩ	105
6.8Ω	068	390Ω	391	22kΩ	223	4.7MΩ	475

ABBREVIATION AND MARKS

ANT.	: ANTENNA	BATT.	: BATTERY
CAP.	: CAPACITOR	CER.	: CERAMIC
CONN.	: CONNECTING	DIG.	: DIGITAL
HP	: HEADPHONE	MIC.	: MICROPHONE
μ-PRO	: MICROPROCESSOR	REC.	: RECORDING
RES.	: RESISTOR	SPK	: SPEAKER
SW	: SWITCH	TRANSF.	: TRANSFORMER
TRIM.	: TRIMMING	TRS.	: TRANSISTOR
VAR.	: VARIABLE	X’ TAL	: CRYSTAL

NOTE ON SAFETY:

Symbol ⚠ Fire or electrical shock hazard. Only original parts should be used to replaced any part marked with symbol ⚠ Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

安全上の注意：

⚠がついている部品は、安全上重要な部品です。必ず指定されている部品番号の部品を使用して下さい。

(VERS. :VERSION, U:U.S.A., F:JAPAN, K:FAR EAST, **:EUROPE)

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
			MAIN CIRCUIT BOARD	
			DIODES	
D101		9965 000 04620	1SS355TE-17	*HD201320R
D103		9965 000 04620	1SS355TE-17	*HD201320R
D190		9965 000 04620	1SS355TE-17	*HD201320R
D191		4822 130 80523	DA204U	HZ20008210
D193		9965 000 04620	1SS355TE-17	*HD201320R
D300		9965 000 04620	1SS355TE-17	*HD201320R
D301		9965 000 04620	1SS355TE-17	*HD201320R
D500		9965 000 04620	1SS355TE-17	*HD201320R
D501		9965 000 04620	1SS355TE-17	*HD201320R
D850		9965 000 04621	UMN11N	*HD201330R
D901		9965 000 04621	UMN11N	*HD201330R
D902		9965 000 04620	1SS355TE-17	*HD201320R
D903		9965 000 04620	1SS355TE-17	*HD201320R
			INTEGRATED CIRCUITS	
IC100		nsp	IC CYC11AP000(HERCULES)	nsp
IC110		4822 209 83357	IC.NJM4560M	HC10029090
IC111		4822 209 71451	IC NJM4558M	HC10011090
IC120		9965 000 04622	IC BU4011BFV-E2	*HC105480R
IC121		9965 000 04624	IC BU4S81-TR	*HC105470R
IC201		nsp	IC CYC12MP000 (LION)	nsp
IC202		9965 000 04625	IC AN8623FBQ	*HC105420R
IC203		4822 209 71451	IC NJM4558M	HC10011090
IC250		9965 000 04626	IC EL5244C	*HC105500R
IC300		9965 000 04627	IC MN67700VRZB	*HC105220R
IC311		9965 000 04628	IC TC7SHU04FUTE85L	*HC105430R
IC490		9965 000 04629	IC MN66261	*HC105210R
IC500		9965 000 04630	IC CYC13DD000(MERMAID)	*HC105340R
IC501		9965 000 04631	IC HY628100ALG-55	*HC105350R
IC502		9965 000 01910	IC HY57V161610DTC-8	HC10092000
IC503		9965 000 04632	IC TC74VHC00FT	HC005105K0
IC550		9965 000 04633	IC TC74VHC157FTEL	HC005805K0
IC600		nsp	IC MB90F574APFV-G249-AKSYS1	nsp
IC602		9965 000 04634	IC MX23C1610MC-12	*HC105490R
IC603		4822 209 16907	IC M24C16-MN6T	*HC105440R
IC605		9965 000 04632	IC TC74VHC00FT	HC005105K0
IC606		9965 000 04635	IC TC74VHCT245AFTEL	*HC105230R
IC607		9965 000 04636	IC TC74VHC574FTEL	HC006205K0
IC610		4822 209 33521	IC TC7W04FUTE12L	HC10382050
IC611		9965 000 04632	IC TC74VHC00FT	HC005105K0
IC612		9965 000 04637	IC TC7WH74FUTE12L	*HC105450R
IC613		9965 000 04639	IC TC74VHC08FTEL	HC005305K0
IC614		9965 000 04640	IC TC74VHC86FT	*HC105330R
IC700		9965 000 04644	IC ZIVA3	*HU100380R
IC701		9965 000 01910	IC HY57V161610DTC-8	HC10092000
IC702		9965 000 01910	IC HY57V161610DTC-8	HC10092000
IC703		9965 000 04645	IC TC7WH157FUTE12L	*HC105370R
IC800		9965 000 04646	IC SM8701BM-ET	*HC105390R
IC801		4822 209 17194	IC TC7WU04FUTE12L	HC700405U0
IC802		9965 000 04628	IC TC7SHU04FUTE85L	*HC105430R
IC803		4822 209 17194	IC TC7WU04FUTE12L	HC700405U0
IC850		9965 000 04647	IC ADV7172 KST	*HC105380R
IC901		9965 000 04648	IC BA05FP-E2	*HC105530R
IC911		9965 000 04649	IC PCM1735E/2K	*HC105400R
IC931		9965 000 04649	IC PCM1735E/2K	*HC105400R
IC951		9965 000 04649	IC PCM1735E/2K	*HC105400R
IC971		9965 000 04649	IC PCM1735E/2K	*HC105400R
IC991		9965 000 04650	IC TC74HC4053AFTEL	*HC105360R
			TRANSISTORS	
TR100		9965 000 04651	UMG4N	BA21711000
TR101		9965 000 04651	UMG4N	BA21711000
TR102		9965 000 04651	UMG4N	BA21711000
TR103		9965 000 04651	UMG4N	BA21711000
TR104		9965 000 04651	UMG4N	BA21711000
TR105		9965 000 04651	UMG4N	BA21711000
TR106		9965 000 04651	UMG4N	BA21711000
TR110		4822 130 63618	FET 2SK880	HY208802B0
TR111		4822 130 63618	FET 2SK880	HY208802B0
TR112		9965 000 04652	FET 2SK2145	*HF200260R
TR117		4822 130 11352	DTC144TU	*BA000820R
TR167		9965 000 04653	FMY4A	*BA000850R
TR170		4822 130 11352	DTC144TU	*BA000820R
TR171		9965 000 04654	UMX3N	*BA000860R
TR172		4822 130 10698	2SA1576A Q/R/S	HX100012A0
TR190		4822 130 60856	DTC144EUA	BA20021210
TR200		4822 130 60669	2SC4081 R/S	HX340811B0
TR201		4822 130 60669	2SC4081 R/S	HX340811B0
TR202		4822 130 60669	2SC4081 R/S	HX340811B0
TR300		4822 130 61199	DTA144EU	BA1001421O
TR490		4822 130 60856	DTC144EUA	BA20021210
TR491		4822 130 11352	DTC144TU	*BA000820R
TR500		4822 130 11352	DTC144TU	*BA000820R
TR600		4822 130 60856	DTC144EUA	BA20021210
TR801		4822 130 10698	2SA1576A Q/R/S	HX100012A0
TR802		4822 130 10698	2SA1576A Q/R/S	HX100012A0
TR804		4822 130 10698	2SA1576A Q/R/S	HX100012A0
TR805		4822 130 10698	2SA1576A Q/R/S	HX100012A0
TR806		4822 130 10698	2SA1576A Q/R/S	HX100012A0
			RESISTORS	
VR110		9965 000 04655	TRIM T08 MVR32 222	*NY000290R
VR120		9965 000 04655	TRIM T08 MVR32 222	*NY000290R
VR121		9965 000 04655	TRIM T08 MVR32 222	*NY000290R
VR202		9965 000 04656	TRIM T08 MVR32 232	*NY000300R
			MISCELLANEOUS	
X301		9965 000 04643	X-TAL CX-16F 40.000MHz	*JX000640R
X601		9965 000 04659	RESONATOR CCR4.0MC3T	*FQ000410R
X800		9965 000 04660	X-TAL CX-11F 27MHz15PPM	*JX000650R
			MECHA CIRCUIT BOARD	
			DIODES	
D11		9965 000 04620	1SS355TE-17	*HD201320R
D31		9965 000 04620	1SS355TE-17	*HD201320R
D32		9965 000 04620	1SS355TE-17	*HD201320R
D33		9965 000 04661	UDZ10BTE-17	*HD301810R
			INTEGRATED CIRCUITS	
IC1		9965 000 04662	IC BA6859AFP-E2	*HC105320R
IC2		9965 000 04663	IC BA5938FM-E2	*HC105300R
IC3		4822 209 71451	IC NJM4558M	HC10011090
IC4		4822 209 83361	IC NJM2904M	*HC105520R
			TRANSISTORS	
TR1		4822 130 60856	DTC144EUA	BA20021210
TR31		9965 000 04667	2SB1132 P/Q/R	*HT200370R
TR32		9965 000 04667	2SB1132 P/Q/R	*HT200370R
TR33		4822 130 10698	2SA1576A Q/R/S	HX100012A0
TR34		4822 130 10698	2SA1576A Q/R/S	HX100012A0
TR35		4822 130 60669	2SC4081 R/S	HX340811B0
TR36		4822 130 63496	DTC114TU	BA20019210
TR37		4822 130 60669	2SC4081 R/S	HX340811B0
TR38		4822 130 61903	DTA114EUA	BA10026210
			MISCELLANEOUS	
P100		9965 000 04664	SOCKET 40FLZ-RSM1-RTB40P T44E	*YJ002180R
P200		9965 000 04665	SOCKET 30FLS-RSM1-TB30P T32E	*YJ002200R
P300		9965 000 04666	SOCKET SFW11R-1STE1 11P T24E	*YJ002190R